

**Phase II Environmental Site Assessment
Community-wide Brownfields Assessment Grants
Charleston County, South Carolina**

**Post and Courier Properties
Columbus, Meeting, and Line Streets
Charleston, Charleston County, South Carolina
Charleston County TMS Nos. 459-05-03-115, 118, -124, and -133**

Submitted to:

Evening Post Publishing Company

Charleston County

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US EPA Region 4**

Submittal Date: June 4, 2013

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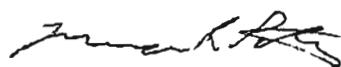
Signature Page

This report, entitled "Phase II Environmental Site Assessment," has been prepared for the Post and Courier Properties in Charleston, South Carolina. It has been prepared by Adam B. MacConnell at the request of and for the exclusive use of the Evening Post Publishing Company, Charleston County, the South Carolina Department of Health and Environmental Control, and the United States Environmental Protection Agency. It has been prepared in accordance with accepted quality control practices and has been reviewed by the undersigned.

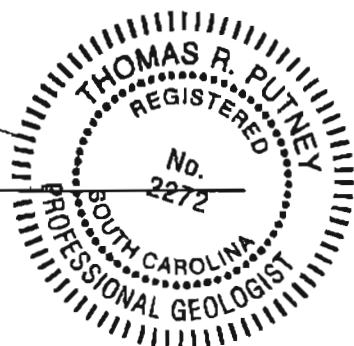
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Phase II Environmental Site Assessment

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Charleston County TMS Nos. 459-05-03-115, 118, -124, and -133**

EXECUTIVE SUMMARY

The Post and Courier Properties (The Property) consist of four commercial parcels (Charleston County TMS No. 459-05-03-115, -118, -124, and -133). The 2.8-acre site is located in the general area of Columbus, Meeting, and Line Streets in Charleston, Charleston County, South Carolina. A Phase I Environmental Site Assessment (Phase I ESA) identified recognized environmental conditions (RECs), historical RECs, and de minimis conditions associated with historical site use. The Post and Courier is preparing the Property for redevelopment. Prior to redevelopment, a Phase II ESA was performed to determine the current environmental conditions of the Property, and the suitability of the site for high density, urban development which will include capping the majority, if not all, of the site.

This Phase II ESA has been conducted in accordance with the EPA approved Site Specific Quality Assurance Project Plan (SSQAPP) and SSQAPP Addendum 2A. The sampling plan was designed to evaluate potential impacts to soil and groundwater based on the historical activities conducted on the site and surrounding properties and in consideration of the proposed future site use.

Only limited impact to soil and groundwater has been identified. Overall the environmental integrity of the site is good, and no significant soil or groundwater contamination is present. Analysis of soil and groundwater from two borings which exhibited petroleum odors did not identify elevated petroleum compounds indicating the petroleum is highly attenuated and degraded. We understand that the majority of the site will be capped as part of planned site development and groundwater use will not be permitted after redevelopment. Given this development plan, there will be no significant long term exposure to site soil or groundwater. However, the existing abandoned USTs and oil/water separator should be removed prior to constructing new facilities. Furthermore, should soil be removed from the site as part of construction activities, it should be characterized and disposed of appropriately.

Phase II Environmental Site Assessment

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1.0 Introduction

The Site Specific Quality Assurance Project Plan Addendum 2.A (SSQAPP) dated February 11, 2013, outlines site investigation activities designed to evaluate the environmental quality of surface and subsurface soil and groundwater at the Post and Courier Property (site) located in Charleston, South Carolina. This SSQAPP was approved by DHEC and the EPA on March 7, 2013.

1.1 Site Environmental History

The Post and Courier Properties (The Property) consist of four commercial parcels (Charleston County TMS No. 459-05-03-115, -118, -124, and -133). The 2.8-acre site is located in the general area of Columbus, Meeting, and Line Streets in Charleston, Charleston County, South Carolina (See Figure 1). The southern parcels of the Property are mostly asphalt-paved. The southeastern parcel is leased by a construction company for equipment and material storage. The southwestern parcel is used as a parking lot. The northern parcels are undeveloped and grassed. The Property is generally bounded to the north by the Carlson Court right-of-way, residences, a Pizza Hut restaurant, Line Street, and a storage facility; to the south across Columbus Street by a Piggly Wiggly grocery store; to the east by Meeting Street and various retail businesses; and to the west by a railroad right-of-way and the Post & Courier Facility (See Figure 2).

A Phase I Environmental Site Assessment (Phase I ESA) was conducted in October 2012 to identify recognized environmental conditions (RECs), historical RECs, and de minimis conditions associated with historical site use.

The Property is located in the Coastal Plain Physiographic Province. Coastal Plain soils are generally marine deposits of interbedded, limestone, sands, silts, clays, gravel and organics. Underlying these deposits are interbedded silty clayey sands and silty sandy clays which belong to the Ashley Member of the Cooper Group. The Cooper Marl, a hydraulic confining layer, is likely to be encountered at 50 to 75 feet below land surface (bls).

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Shallow groundwater generally flows in directions subparallel to ground surface slopes and under the influence of gravity towards points of discharge such as creeks, marsh, or drainage swales. Based on previous investigations, groundwater underlying the Property is expected to flow towards the northeast.

The findings of the Phase I ESA are summarized below:

- A review of Charleston City Directories and Sanborn Fire Insurance maps identified that the Arctic Ice and Coal Company was previously located on the southwest portion of the Property. Based on the likelihood of handling chemicals of concern (COCs), the former Arctic Ice and Coal Company is an onsite REC.
- The Property was previously occupied by the Packet Motor Lines and subsequently, Watkins Motor Lines. Multiple onsite RECs were identified in association with this previous development, including a former truck washing area, a former truck maintenance garage, an inactive oil/water separator, and four underground petroleum storage tanks (USTs), which were abandoned in place.
- The western adjacent property is developed with a railroad right-of-way. Fuels used to power trains typically contain metals and polynuclear aromatic hydrocarbons (PAHs). Furthermore, railroad ties are pressure treated with creosote or metals.

1.2 Field Activities

The sampling rationale specified in the SSQAPP was developed to assess soil and groundwater impacts associated with the former truck washing area, a former truck maintenance garage, an inactive oil/water separator, and four underground petroleum storage tanks (USTs), and to provide a baseline of conditions from prior site use. The sampling rationale was prepared in accordance with the Charleston County Brownfields Program Quality Assurance Project Plan (QAPP), which specifies testing for analytes included on the EPA Target Analyte List (TAL) and the Target Compound List (TCL). The SSQAPP is included in Appendix I.

This report provides an overview of the sampling and analysis methods, including deviations from the SSQAPP, and presents and discusses the results of the soil and groundwater investigations.

2.0 Methods

All sampling and analysis activities were completed in accordance with the SSQAPP.

2.1 Sample Locations and Collection

The Phase II ESA was designed to assess potentially impacted environmental media, including soil and groundwater. The field activities described were conducted on April 1, 2013. Soil and groundwater sample locations are shown on Figure 2. Table 1 provides a summary of soil boring locations (9 locations, 18 soil samples) and monitoring well locations (3 groundwater samples), sample identifications, sample intervals, and analyses performed. Soil boring and monitoring well logs are included in Appendix II.

2.1.1 Soil Sampling

The rationale for the soil sample locations is described in the SSQAPP. Direct Push Technology (DPT) samples were collected in 4-foot acetate sleeves, which were contained in a core barrel that was advanced hydraulically using the DPT drilling rig. Soil was screened for organic vapors using a portable Photoionization Detector (PID) at 1-foot intervals. Physical indications of impact, such as odors or staining, were also noted.

Soil samples were collected for analysis from the nine locations shown on Figure 2. The sample designations and depths are summarized in Table 1. Surface soil samples were collected from 0-1 foot below land surface (bls), and subsurface soil samples were collected from a 1-foot interval between 3 feet bls and the water table, which was encountered at a depth of 3 to 6 feet bls across the site. The specific 1-foot interval above the water table with the greatest physical indication of impact and/or highest PID reading was submitted to the laboratory for analysis. The soil samples were collected from each location and analyzed for: EPA TAL metals (excluding cyanide), TCL volatile organic compounds (VOCs), and TCL semi-volatile organic compounds (SVOCs). Additionally, TCL pesticides and polychlorinated biphenyls (PCBs) were analyzed in soil samples collected from areas adjacent to the oil-water separator and the former truck washing area.

2.1.2 Groundwater Sampling

Three temporary monitoring wells were installed on April 1, 2013, at the locations shown on Figure 2. The wells were installed with DPT, using a retractable stainless steel screen. The wells were installed by Mr. Steve Rucker of GEL, South Carolina Certified Well Driller # 1330, in accordance with South Carolina Well Standards and Regulations

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61-71. Wells were installed to a depth of approximately 12 feet bls. The soil boring logs and well records are included in Appendix II, and screen intervals are summarized in Table 1.

Groundwater samples were collected using the methods specified in the SSQAPP and were analyzed for TAL Metals (excluding cyanide), TCL VOCs, and TCL SVOCs. Wells PC-MW-01 and PC-MW-02 were also analyzed for TCL pesticides and PCBs. TAL metals were analyzed as both total and dissolved fractions to assess the effect of sample turbidity on metal concentrations.

2.1.3 Field Quality Control Sampling and Analytical Results

Field Quality Assurance/Quality Control (QA/QC) samples were submitted for laboratory analysis as shown on Table 1. One field duplicate soil sample and one field duplicate groundwater sample were analyzed for the same constituents as their associated primary samples.

The trip blank was analyzed for TCL VOCs, and no VOCs were detected. Field, and equipment blanks were analyzed for TCL VOCs, TCL SVOCs and TAL Metals and no constituents were detected in these quality control samples. In general, the analytical results from the field duplicate samples were consistent with the results from the primary samples.

2.2 Sample Identification

All samples collected from the site are designated as site-specific "PC" (Post and Courier) samples. Soil samples are further designated as "SS" with a location and depth notation. The 9 discrete soil sample locations are identified by sequential numbers beginning with 01. Groundwater samples are designated as "MW." The groundwater monitoring well locations are identified by sequential numbers beginning with 01. Duplicate samples have the same sample identification number as the original sample with a "D" suffix. Trip blanks are designated "TB," and field blanks are designated "FB." Trip blanks, and field blanks are also identified by the sample collection date. The following are examples of sample identification:

PC-SS-01-0-1 Surface soil sample collected from the 01 boring location at a depth of 0 to 1 foot bls

PC-SS-01-2-3 Subsurface soil sample collected from the 01 boring location at a depth of 2 to 3 feet bls

PC-SS-03-0-1-D	Duplicate surface soil sample collected from the 03 boring location at a depth of 0 to 1 feet bls
PC-MW-03	Groundwater sample collected from the 03 permanent monitoring well location
PC-TB-040113	Trip blank collected on April 1, 2013
PC-FB-040113	Field blank collected on April 1, 2013

2.3 Analytical Data Quality and Data Qualifiers

Analytical data were subjected to data validation by GEL Laboratories, LLC and a quality assurance review. The objective of data validation is to identify any questionable or invalid laboratory measurements and to determine if the quality is sufficient to meet the data quality objectives. Data validation involves a review of the QC data and the raw data to verify that the laboratory was operating within required limits. The data were reviewed to determine if the results from the environmental samples were biased due to internal laboratory error.

Laboratory Quality Control Summaries and Case Narratives included with the laboratory Certificates of Analysis in Appendix III indicate that the data is of high quality and suitable for the intended use. In the tables presented in this report, some concentrations of analytes have been assigned a "J" qualifier. This indicates that the qualitative analysis was acceptable, but the quantitative value is an estimate above the method detection limit (MDL), but below the laboratory practical quantitation limit (PQL). Other analytes have been assigned a "U" qualifier, indicating that the analyte was analyzed for, but not detected above the MDL for that sample. No corrective action was required and all values were reported. No additional sampling or analyses were performed, based upon the validation results.

3.0 Site Hydrogeology

The site hydrogeologic characteristics identified by the Phase II ESA activities are summarized in this section.

3.1 General Soil Description

As depicted on the soil boring logs (Appendix II) the site is typically underlain by fine sands and clayey sands to a depth of approximately 5 feet bls, which are underlain by silty sand, clayey sand and sandy silt to a depth of 12 feet bls, the maximum depth drilled. A variety of debris including bricks, glass, and coal fragments is present in soil

reflecting a long history of site development. Petroleum odors and elevated PI detections were noted in PC-SS-03 and PC-SS-04 near the abandoned USTs.

3.2 Groundwater Conditions

The water table is encountered at depths ranging from approximately 3 to 6 feet bsls. Groundwater is expected to flow to the northeast based on previous assessments in the area. However, since temporary monitoring wells were installed, a water table elevation map could not be developed for this site.

4.0 Analytical Results

The laboratory analytical results for samples collected from the site are summarized in this section. Based on the intended site redevelopment for these properties, the analytical results are compared to EPA Regional Screening Levels (RSLs) for industrial soil (I-RSL) (See Table 2). Groundwater analytical results are compared to the South Carolina Class GB Groundwater Maximum Contaminant Levels (MCLs) (See Table 3).

Additionally, as specified in the Brownfields Grant Program QAPP, soil analytical data has been compared to RSLs for residential soil (R-RSL) (See Table 4), and groundwater samples are compared to EPA Tapwater RSLs (See Table 5) for constituents without an established MCL. The discussion of the analytical results is limited to I-RSLs for soil and MCLs for groundwater as these screening criteria are the most relevant for the intended site redevelopment plans. Chain of Custody documentation and laboratory Certificates of Analysis are provided in Appendix III.

4.1 Soil Analytical Results

A total of 9 discrete surface and 9 discrete subsurface soil samples were collected from the site. A duplicate of sample PC-SS-03-0-1 was also collected. Table 2 provides a summary of detected analyte concentrations in the soil samples which exceed their I-RSLs. Figure 3 is a soil sample location map showing constituents exceeding I-RSLs. No elevated concentrations were detected from soil sample locations PC-SS-03 and PC-SS-04 indicating that any fuel released has been degraded or otherwise attenuated.

As shown in Table 2, none of the VOC concentrations identified in the soil samples exceeded I-RSLs.

Arsenic was the only metal detected at concentrations exceeding its I-RSL in 7 surface samples and 1 subsurface sample. However these concentrations are within the range of natural background arsenic levels for the South Carolina Coastal Plain (Canova, 1999).

Furthermore, DHEC and the EPA have determined that arsenic concentrations much greater than these are acceptable in residential settings and various other sites in South Carolina.

The pesticide dieldrin was detected in the surface soil sample collected in the area of the former oil/water separator (PC-SS-02-0-1) at a concentration exceeding its I-RSL. This occurrence is isolated to one sample location and does not indicate widespread pesticide contamination across the property.

Concentrations of two SVOCs (benzo(a)pyrene and dibenzo(a,h)anthracene) were detected in surface soil sample PC-SS-08-0-1 at concentrations exceeding their respective I-RSLs. The detection of SVOCs is common in urban settings as a byproduct of incomplete combustion of fossil fuels. Furthermore, the presence of coal fragments in surface soil may contribute to the detection of these compounds. The occurrence of SVOCs above I-RSLs is limited to one surface sample location and is not widespread across the property.

4.2 Groundwater Analytical Results

The three temporary monitoring wells were sampled on April 1, 2013. A duplicate groundwater sample was collected from monitoring well PC-MW-03. A summary of constituents detected above MCLs in site groundwater samples is provided in Table 3. Figure 4 is a groundwater sample location map showing constituents exceeding MCLs. VOCs were not detected in any of the groundwater samples except for naphthalene in PC-MW-03 at a concentration well below its DHEC Risk Based Corrective Action Level of 25 ug/L. This finding provides further confirmation that the petroleum odors noted in the borings are a result of degraded and attenuated fuel. Two metals were detected at concentrations exceeding MCLs. Arsenic concentrations exceeding the MCL were detected in PC-MW-01 and PC-MW-03 in both filtered and unfiltered samples. A lead concentration exceeding the MCL was also detected in the unfiltered sample from PC-MW-03.

5.0 Discussion of Findings

Site soil and groundwater were analyzed for VOCs, SVOCs, Metals, Pesticides and PCBs. The results of the assessment are discussed in this section.

5.1 Site Soil

Analyses of discrete surface and subsurface soil samples identified no concentrations of VOCs or PCBs exceeding RSLs.

Arsenic was detected at concentrations exceeding its I-RSL in 7 surface samples and 1 subsurface sample. These concentrations are indicative of natural background concentrations in the Coastal Plain and do not indicate a specific release of these metals to the environment.

Benzo(a)pyrene and dibenzo(a,h)anthracene were detected above their I-RSLs in one surface soil sample (PC-SS-08-0-1). The detection of these SVOCs are common in urban background settings as a byproduct of incomplete combustion of fossil fuels, and they do not represent a specific release to the environment from prior site use

Dieldrin was detected above its I-RSL in one isolated surface soil sample adjacent to the oil/water separator (PC-SS-02-0-1). The oil/water separator will be removed during site redevelopment and limited soil removal may be conducted at that time to remove these impacted soils.

5.2 Site Groundwater

Groundwater quality appears good overall and significant impact to groundwater was not identified. Constituent concentrations in groundwater do not exceed their respective MCLs with the exception of arsenic in filtered and unfiltered samples from PC-MW-01 and PC-MW-03 and lead in unfiltered samples from PC-MW-03. The detection of lead slightly in excess of the MCL in an unfiltered sample is attributable to sample turbidity. However, arsenic was reported at an estimated concentration slightly above its MCL (10 ug/L) in filtered and unfiltered samples from PC-MW-01 and PC-MW-03. Natural background concentrations of arsenic in site soil have apparently contributed to the dissolved groundwater arsenic concentrations. However, this occurrence poses no threat to human health or the environment since the area is served by public water supply and groundwater is not used.

6.0 Conclusions

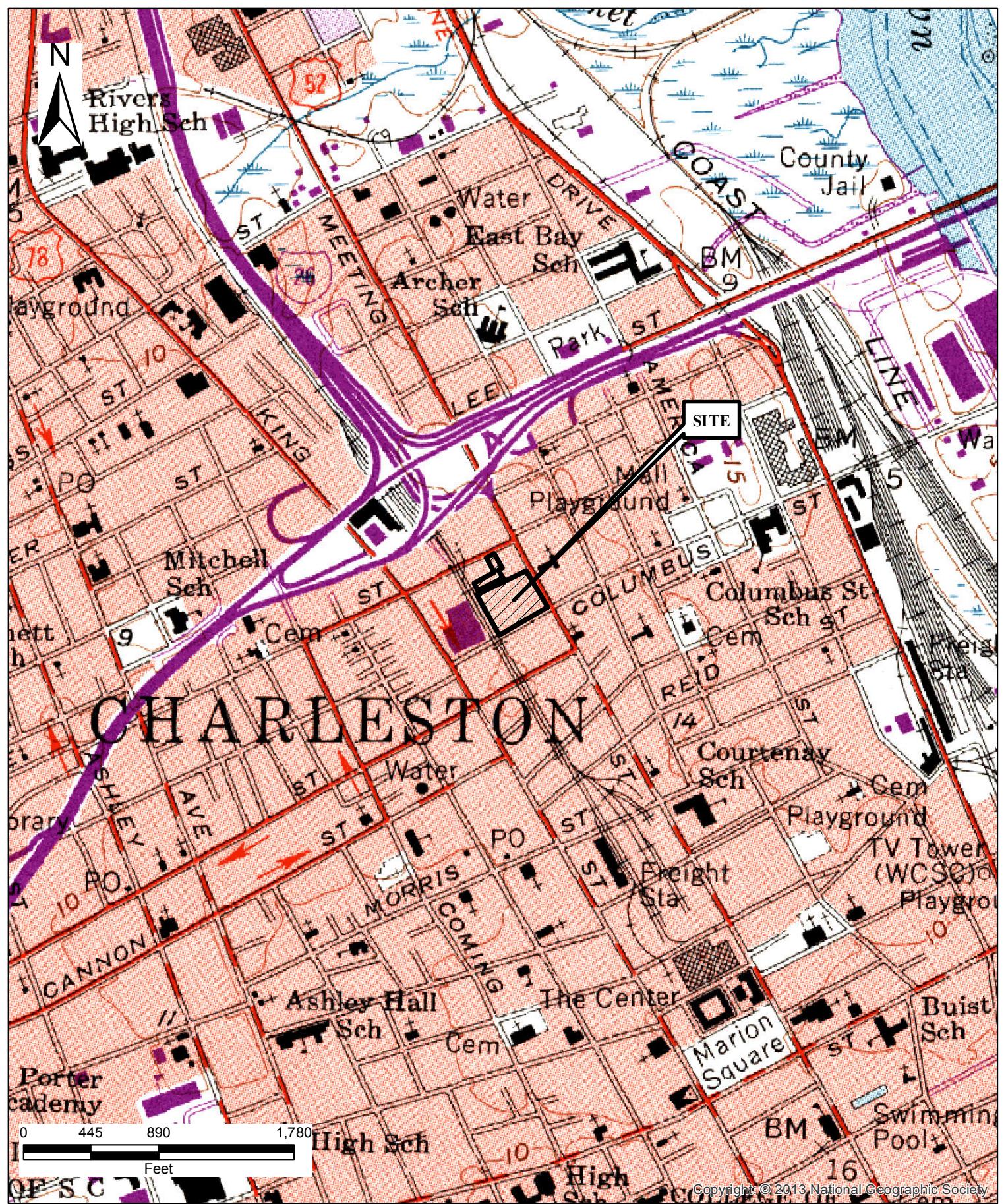
Only limited impact to soil and groundwater has been identified. Overall the environmental integrity of the site is good, and no significant soil or groundwater contamination is present. Analysis of soil and groundwater from two borings which exhibited petroleum odors did not identify elevated petroleum compounds indication

the petroleum is highly attenuated and degraded. We understand that the majority of the site will be capped as part of planned site development. Given this development plan, there will be no significant long term exposure to impacted soil or groundwater. However, the existing abandoned USTs and oil/water separator should be removed prior to redevelopment. Furthermore, if soil is excavated for removal from the site as part of construction activities, it should be characterized to determine options for appropriate disposal and/or reuse.

7.0 References

Canova, J., 1999, "Elements in South Carolina: Inferred Background Soil and Stream Sediment Samples" South Carolina Geology, v. 41, p. 11-25.

FIGURES



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COLUMBUS, MEETING, AND LINE STREETS
CHARLESTON, SOUTH CAROLINA

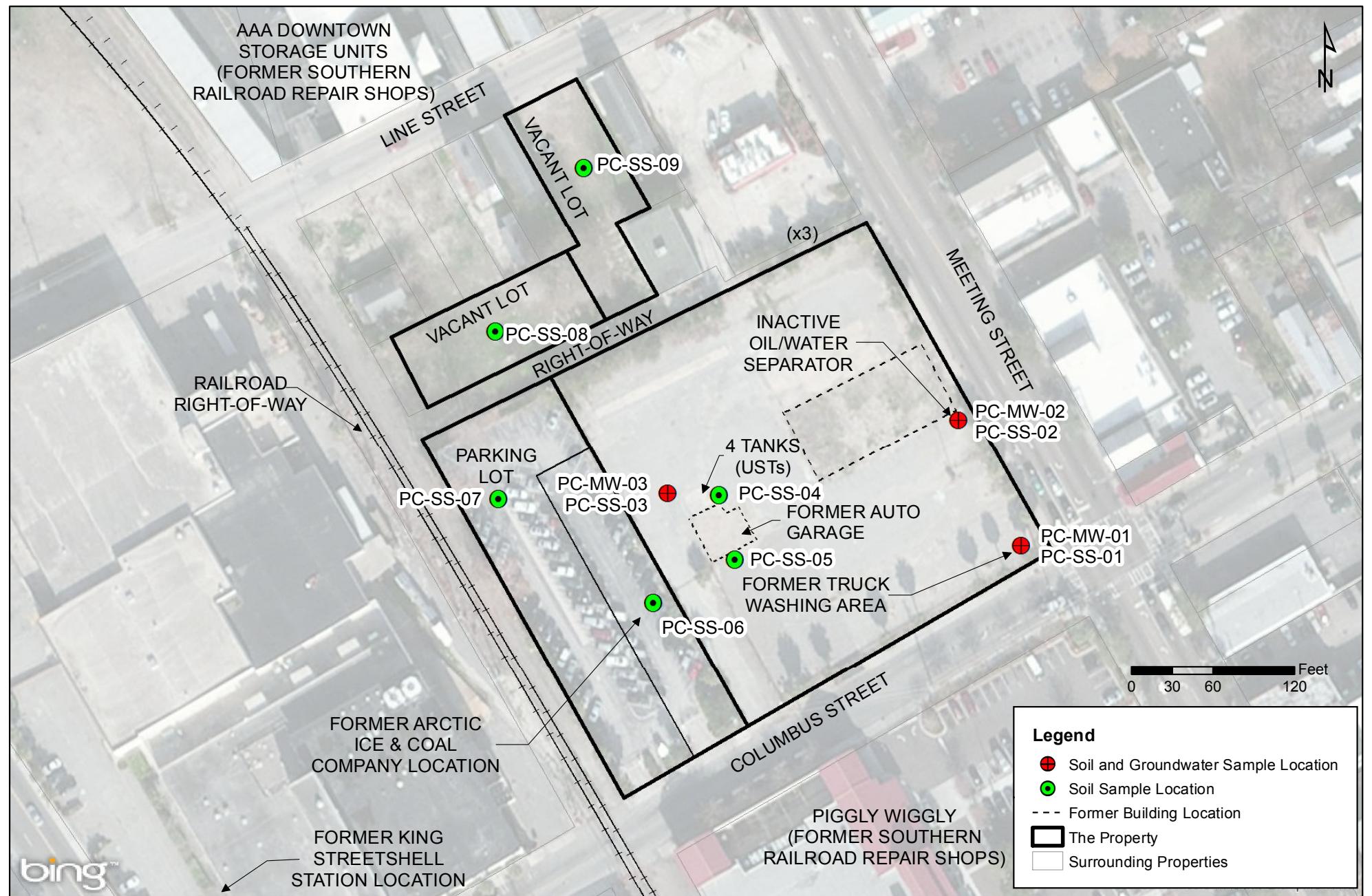
SITE LOCATION MAP

FIGURE 1

DATE: MAY 3, 2013

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Legend

- Soil and Groundwater Sample Location
- Soil Sample Location
- Former Building Location
- The Property
- Surrounding Properties

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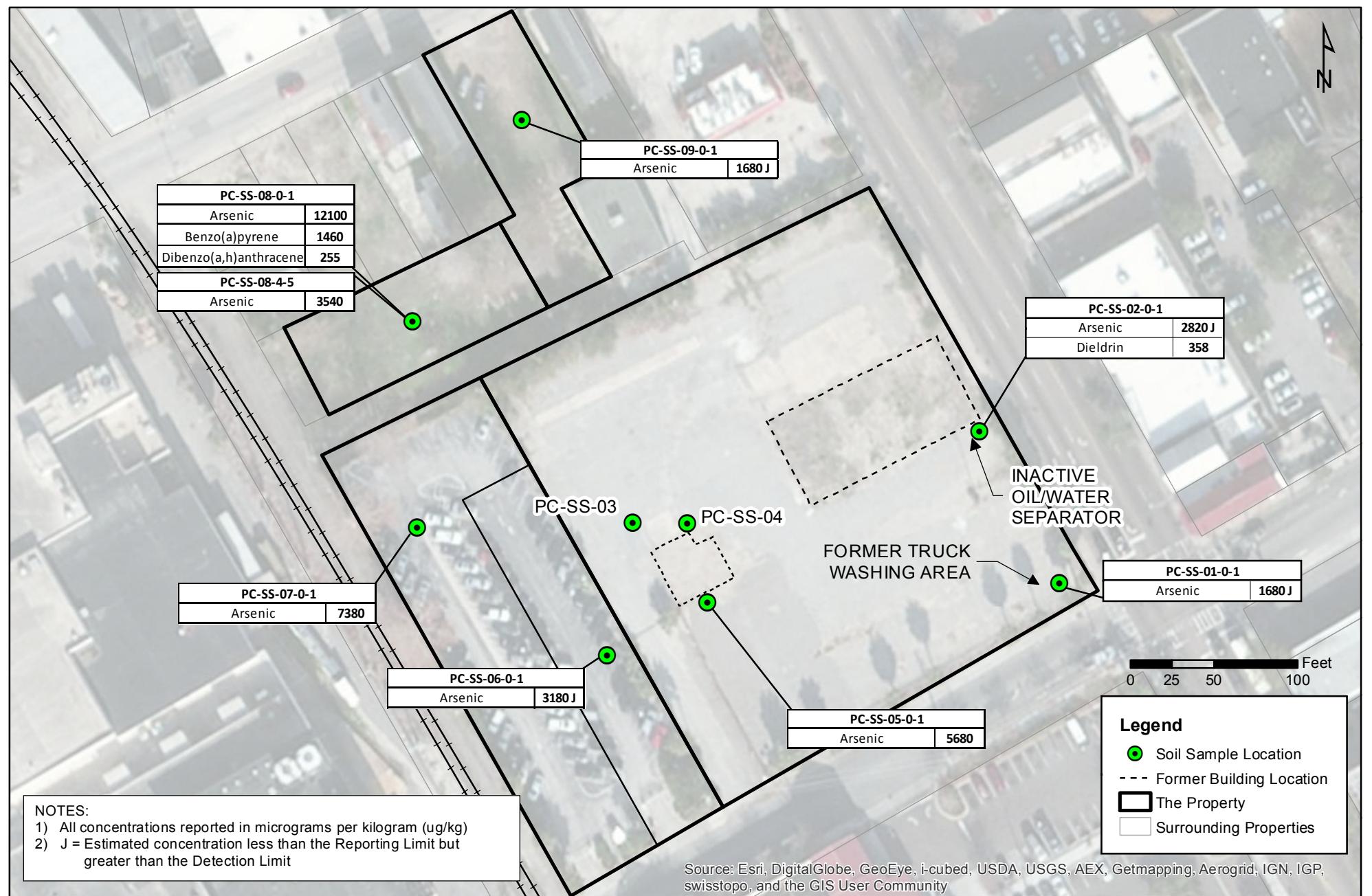
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CHARLESTON, SOUTH CAROLINA

SOIL AND GROUNDWATER
SAMPLE LOCATIONS

FIGURE
2

DATE: MAY 3, 2013

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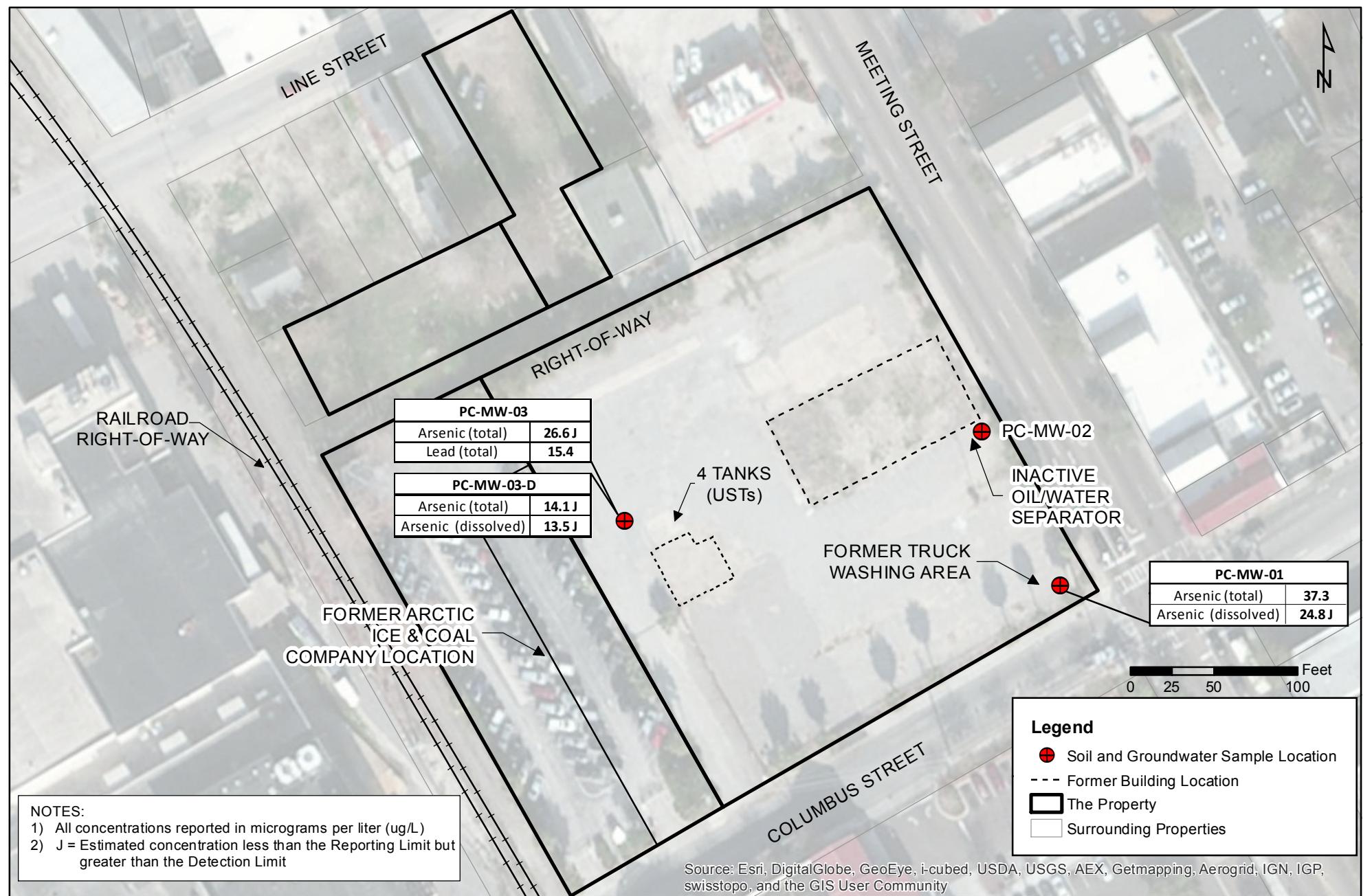


Legend

- Soil Sample Location
- - - Former Building Location
- The Property
- Surrounding Properties

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PROJECT: char00712	SOIL SAMPLES EXCEEDING INDUSTRIAL REGIONAL SCREENING LEVELS	FIGURE 3
PHASE II ESA REPORT POST & COURIER PROPERTY COLUMBUS, MEETING, AND LINE STREETS CHARLESTON, SOUTH CAROLINA		
DATE: JUNE 3, 2013	CREATED BY: RCR	APPRV BY: ABM



PROJECT: char00712	PHASE II ESA REPORT POST & COURIER PROPERTY COLUMBUS, MEETING, AND LINE STREETS CHARLESTON, SOUTH CAROLINA	GROUNDWATER SAMPLES EXCEEDING MAXIMUM CONTAMINANT LEVEL	FIGURE 4
DATE: JUNE 3, 2013		CREATED BY: RCR	APPRV BY: ABM

TABLES

Table 1
Sample Identifications, Sample Intervals, and Analyses Performed

**Post and Courier Property
Columbus, Meeting, and Line Streets
Charleston, South Carolina**

Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type	Analyses
Soil Samples				
PC-SS-01	0	1	Surface	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
PC-SS-01	4	5	Subsurface	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
PC-SS-02	0	1	Surface	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
PC-SS-02	5	6	Subsurface	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
PC-SS-03	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-03	3	4	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-04	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-04	4	5	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-05	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-05	4	5	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-06	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-06	4	5	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-07	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-07	4	5	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-08	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-08	4	5	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-09	0	1	Surface	TCL VOCs, TCL SVOCs, TAL Metals
PC-SS-09	4	5	Subsurface	TCL VOCs, TCL SVOCs, TAL Metals
Groundwater Samples				
PC-MW-01	8	12	Field Sample	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
PC-MW-02	8	12	Field Sample	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
PC-MW-03	8	12	Field Sample	TCL VOCs, TCL SVOCs, TAL Metals
Quality Control				
<i>Field Duplicates</i>				
PC-SS-03-0-1D	0	1	Duplicate Soil	TCL VOCs, TCL SVOCs, TAL Metals
PC-MW-03-D	8	12	Duplicate Groundwater	TCL VOCs, TCL SVOCs, TAL Metals
<i>Blanks</i>				
PC-EB-040113	NA	NA	Equipment Blank	TCL VOCs, TCL SVOCs, TAL Metals
PC-FB-040113	NA	NA	Field Blank	TCL VOCs, TCL SVOCs, TAL Metals
PC-TB-040113	NA	NA	Trip Blank	TCL VOCs

Table 2
Soil Analytical Results in Excess of
Regional Screening Levels for Industrial Soil (I-RSLs)

**Post and Courier Property
Meeting Steet
Charleston, South Carolina**

Sample_No	Fraction	Parameter	Units	Lab Result
PC-SS-01-0-1	METALS	Arsenic	ug/Kg	1680
PC-SS-02-0-1	METALS	Arsenic	ug/Kg	2820
PC-SS-02-0-1	PEST	Dieldrin	ug/Kg	358
PC-SS-05-0-1	METALS	Arsenic	ug/Kg	5680
PC-SS-06-0-1	METALS	Arsenic	ug/Kg	3180
PC-SS-07-0-1	METALS	Arsenic	ug/Kg	7380
PC-SS-08-0-1	METALS	Arsenic	ug/Kg	12100
PC-SS-08-0-1	SVOA	Benzo(a)pyrene	ug/Kg	1460
PC-SS-08-0-1	SVOA	Dibenzo(a,h)anthracene	ug/Kg	255
PC-SS-08-4-5	METALS	Arsenic	ug/Kg	3540
PC-SS-09-0-1	METALS	Arsenic	ug/Kg	1680

Notes:

- 1) All concentrations in micrograms per kilogram (ug/Kg)
- 2) J = Estimated concentration greater than the detection limit but less than the reporting limit
- 3) **Bold Text** indicates concentration exceeds industrial RSL
- 4) I-RSL = US EPA Regional Screening Level (RSL) for industrial soil (November 2012 Summary Tables)

Table 3
Groundwater Analytical Results in Excess of
Maximum Contaminant Levels (MCLs)

**Post and Courier Property
Meeting Street
Charleston, South Carolina**

Sample_No	Fraction	Parameter	Lab Result	Lab_Qual
PC-MW-01	METALS	Arsenic (Total)	37.3	
PC-MW-01	METALS	Arsenic (Dissolved)	24.8	J
PC-MW-03	METALS	Arsenic (Total)	26.6	J
PC-MW-03	METALS	Lead (Total)	15.4	
PC-MW-03-D	METALS	Arsenic (Total)	14.1	J
PC-MW-03-D	METALS	Arsenic (Dissolved)	13.5	J

Notes:

- 1) All concentrations in micrograms per liter (ug/L)
- 2) J = Estimated concentration greater than the detection limit but less than the reporting limit
- 3) MCL: South Carolina Class GB Drinking Water Maximum Contaminant Level: South Carolina Regulation
- 4) **Bold Text** indicates concentration exceeds MCL

Table 4
Soil Analytical Results in Excess of
Regional Screening Levels for Residential Soil (R-RSLs)

**Post and Courier Property
Meeting Street
Charleston, South Carolina**

Sample_No	Fraction	Parameter	Units	Lab Result	ISL
PC-SS-01-0-1	METALS	Arsenic	ug/Kg	1680	1600
PC-SS-01-4-5	METALS	Arsenic	ug/Kg	741	1600
PC-SS-02-0-1	METALS	Arsenic	ug/Kg	2820	1600
PC-SS-02-0-1	METALS	Thallium	ug/Kg	924	10000
PC-SS-02-0-1	PEST	Dieldrin	ug/Kg	358	110
PC-SS-02-0-1	PEST	Toxaphene	ug/Kg	958	1600
PC-SS-02-0-1	SVOA	Benzo(a)pyrene	ug/Kg	156	210
PC-SS-02-0-1	SVOA	Benzo(b)fluoranthene	ug/Kg	282	2100
PC-SS-02-0-1	SVOA	Dibenz(a,h)anthracene	ug/Kg	35.9	210
PC-SS-02-5-6	METALS	Arsenic	ug/Kg	1190	1600
PC-SS-03-0-1-D	METALS	Arsenic	ug/Kg	1360	1600
PC-SS-03-3-4	METALS	Arsenic	ug/Kg	1330	1600
PC-SS-03-3-4	SVOA	Benzo(a)pyrene	ug/Kg	26.8	210
PC-SS-03-3-4	SVOA	Naphthalene	ug/Kg	3870	18000
PC-SS-04-0-1	METALS	Arsenic	ug/Kg	1490	1600
PC-SS-04-0-1	SVOA	Benzo(a)pyrene	ug/Kg	85.8	210
PC-SS-05-0-1	METALS	Arsenic	ug/Kg	5680	1600
PC-SS-05-0-2	METALS	Lead	ug/Kg	747000	800000
PC-SS-05-0-1	SVOA	Benzo(a)pyrene	ug/Kg	158	210
PC-SS-05-0-1	SVOA	Benzo(b)fluoranthene	ug/Kg	254	2100
PC-SS-05-0-1	SVOA	Dibenz(a,h)anthracene	ug/Kg	38.8	210

Table 4
Soil Analytical Results in Excess of
Regional Screening Levels for Residential Soil (R-RSLs)

**Post and Courier Property
Meeting Street
Charleston, South Carolina**

Sample_No	Fraction	Parameter	Units	Lab Result	ISL
PC-SS-05-4-5	METALS	Arsenic	ug/Kg	892	1600
PC-SS-06-0-1	METALS	Arsenic	ug/Kg	3180	1600
PC-SS-06-0-1	SVOA	Benzo(a)pyrene	ug/Kg	54.9	210
PC-SS-06-0-1	SVOA	Dibenz(a,h)anthracene	ug/Kg	16.7	210
PC-SS-06-4-5	METALS	Arsenic	ug/Kg	909	1600
PC-SS-07-0-1	METALS	Arsenic	ug/Kg	7380	1600
PC-SS-07-0-1	METALS	Lead	ug/Kg	494000	800000
PC-SS-07-0-1	METALS	Thallium	ug/Kg	901	10000
PC-SS-07-0-1	SVOA	Benzo(a)anthracene	ug/Kg	160	2100
PC-SS-07-0-1	SVOA	Benzo(a)pyrene	ug/Kg	195	210
PC-SS-07-0-1	SVOA	Benzo(b)fluoranthene	ug/Kg	262	2100
PC-SS-07-0-1	SVOA	Indeno(1,2,3-cd)pyrene	ug/Kg	152	2100
PC-SS-08-0-1	METALS	Arsenic	ug/Kg	12100	1600
PC-SS-08-0-1	METALS	Lead	ug/Kg	722000	800000
PC-SS-08-0-1	SVOA	Benzo(a)anthracene	ug/Kg	1540	2100
PC-SS-08-0-1	SVOA	Benzo(a)pyrene	ug/Kg	1460	210
PC-SS-08-0-1	SVOA	Benzo(b)fluoranthene	ug/Kg	2040	2100
PC-SS-08-0-1	SVOA	Dibenz(a,h)anthracene	ug/Kg	255	210
PC-SS-08-0-1	SVOA	Indeno(1,2,3-cd)pyrene	ug/Kg	1030	2100
PC-SS-08-4-5	METALS	Arsenic	ug/Kg	3540	1600
PC-SS-08-4-5	SVOA	Benzo(a)pyrene	ug/Kg	18.0	210

Table 4
Soil Analytical Results in Excess of
Regional Screening Levels for Residential Soil (R-RSLs)

**Post and Courier Property
Meeting Street
Charleston, South Carolina**

Sample_No	Fraction	Parameter	Units	Lab Result	ISL
PC-SS-09-0-1	METALS	Arsenic	ug/Kg	1680	1600
PC-SS-09-0-1	SVOA	Benzo(a)pyrene	ug/Kg	122	210
PC-SS-09-0-1	SVOA	Benzo(b)fluoranthene	ug/Kg	183	2100
PC-SS-09-0-1	SVOA	Dibenzo(a,h)anthracene	ug/Kg	25.0	210
PC-SS-09-4-5	METALS	Arsenic	ug/Kg	1430	1600

Notes:

- 1) All concentrations in micrograms per kilogram (ug/Kg)
- 2) J = Estimated concentration greater than the detection limit but less than the reporting limit
- 3) **Bold Text** indicates concentration exceeds industrial RSL
- 4) R-RSL = US EPA Regional Screening Level (RSL) for residential soil (November 2012 Summary Tab)
- 5) I-RSL = US EPA Regional Screening Level (RSL) for industrial soil (November 2012 Summary Table)

Table 5
Groundwater Analytical Results in Excess of
Regional Screening Levels for Tapwater (Tapwater-RSLs)

**Post and Courier Property
Meeting Street
Charleston, South Carolina**

Sample_No	Fraction	Parameter	Lab Result	Lab_Qual	Tapwater RSL
PC-MW-01	METALS	Arsenic (Total)	37.3		0.045
PC-MW-01	METALS	Arsenic (Dissolved)	24.8	J	0.045
PC-MW-01	METALS	Cobalt	4.91	J	4.7
PC-MW-01	METALS	Iron (Total)	24400		11000
PC-MW-01	METALS	Iron (Dissolved)	16500		11000
PC-MW-01	PCB	Aroclor-1254	0.0639	J	0.034
PC-MW-01	PEST	Dieldrin	0.0122	J	0.0015
PC-MW-03	METALS	Aluminum (Total)	18200		16000
PC-MW-03	METALS	Arsenic (Total)	26.6	J	0.045
PC-MW-03	METALS	Iron (Total)	34400		11000
PC-MW-03	METALS	Lead (Total)	15.4		
PC-MW-03	SVOA	Naphthalene	7.72		0.14
PC-MW-03-D	METALS	Arsenic (Total)	14.1	J	0.045
PC-MW-03-D	METALS	Arsenic (Dissolved)	13.5	J	0.045
PC-MW-03-D	SVOA	Naphthalene	7.28		0.14

Notes:

- 1) All concentrations in micrograms per liter (ug/L)
- 2) J = Estimated concentration greater than the detection limit but less than the reporting limit
- 3) MCL: South Carolina Class GB Drinking Water Maximum Contaminant Level: South Carolina Regulation 61-58
- 4) Tapwater RSL: US EPA Regional Screening Level (RSL) for Tapwater (November 2012 Summary Tables)

APPENDIX I

SITE SPECIFIC QUALITY ASSURANCE PROJECT PLAN (SSQAPP)

(On Compact Disc)



Engineering LLC

Environmental | Engineering | Surveying

Site Specific Quality Assurance Project Plan (SSQAPP)

Addendum 2.A to Generic QAPP

Community-wide Brownfields Assessment Grants

(Hazardous Substances and Petroleum)

Grant (BF-95483111-0)

Charleston County, South Carolina

Post and Courier Property

Columbus, Meeting, and Line Streets

Charleston, Charleston County, South Carolina

Charleston County TMS Nos. 459-05-03-115, 118, -124, and -133

Submitted to:

Mr. Brian Gross

US EPA Region 4

RCRA Division

Brownfields Section

61 Forsyth Street, SW

Atlanta, GA 30303-8960

Submittal Date: February 11, 2013

*Addendum 2.A to the Charleston County Generic QAPP is prepared in accordance with the Environmental Protection Agency's Region 4 Brownfields Program. All work described in this document will be performed in accordance with the processes described in Charleston County's Generic QAPP.

Site Specific Quality Assurance Project Plan (SSQAPP)
Addendum 2.A to Generic QAPP
Community-wide Brownfields Assessment Grants
(Hazardous Substances and Petroleum)
Grant (BF-95483111-0)

Project:

Post and Courier Property
Columbus, Meeting, and Line Streets
Charleston, Charleston County, South Carolina
Charleston County TMS Nos. 459-05-03-115, 118, -124, and -133

Prepared for:

Charleston County
4045 Bridge View Drive
North Charleston, South Carolina 29405

Submitted to:

Mr. Brian Gross
US EPA Region 4
RCRA Division
Brownfields Section
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Submitted by:

GEL Engineering, LLC
a Member of THE GEL GROUP, INC.
P.O. Box 30712
2040 Savage Road
Charleston, South Carolina 29417

Addendum 1.A to the Charleston County Generic QAPP is prepared in accordance with the Environmental Protection Agency's Region 4 Brownfields Program. All work described in this document will be performed in accordance with the processes described in Charleston County's Generic QAPP.

Submittal Date: February 11, 2013

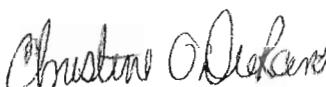
A. PROJECT MANAGEMENT
A1. TITLE AND APPROVAL PAGE

Site Specific Quality Assurance Project Plan (SSQAPP)
Addendum 2.A to Generic QAPP
Community-wide Brownfields Assessment Grants
(Hazardous Substances and Petroleum)
Grant (BF-95483111-0)

Prepared by:
Adam B. MacConnell
GEL Engineering, LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 768-7378

On Behalf of: Charleston County, South Carolina (Grantee)

Program Manager:
Charleston County


Signature
Christine O'Dell 3/7/13

Printed Name/ Date

Project Manager:
GEL Engineering


Signature
Tom Hutto 3/7/13

Printed Name/ Date

Project QA Officer:
GEL Engineering


Signature
Thomas Putney 3/7/13

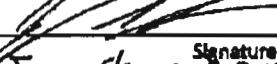
Printed Name/ Date

Laboratory QA Officer:
GEL Laboratories


Signature
Robert L. Pollard 3/7/2013

Printed Name/ Date

Project Manager:
SCDHEC


Signature
Jerry Stimpes 3-7-13

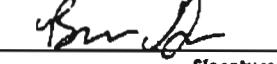
Printed Name/ Date

Project Officer Approval:
U.S. EPA


Signature
BRIAN GROSS

Printed Name/ Date

QA Officer Approval:
U.S. EPA


Signature
BRIAN GROSS

Printed Name/ Date

A2. TABLE OF CONTENTS

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5	Monitoring Well Schematic
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2	Table 2 – Field Sample and Field QC Sample Summary

A3. DISTRIBUTION LIST AND ACRONYMS

The following individuals will receive copies of the approved SSQAPP:

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Mr. Adam B. MacConnell
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2040 Savage Road
Charleston, South Carolina 29417
(843) 769-7378
adam.macconnell@gel.com

The following is the list of commonly used acronyms throughout this Site Specific Quality Assurance Project Plan:

- COPC: Constituents of Potential Concern
- EIA: Expanded Initial Assessment
- EPA: United States Environmental Protection Agency
- ESA: Environmental Site Assessment
- GEL: GEL Engineering, LLC
- GEL Labs: GEL Laboratories, LLC
- DHEC: South Carolina Department of Health and Environmental Control
- PID: Photoionization Detector
- PPM: Parts per Million
- QA: Quality Assurance
- QC: Quality Control
- QAP: Quality Assurance Plan
- QAPP: Quality Assurance Project Plan
- REC: Recognized Environmental Condition
- SSQAPP: Site Specific Quality Assurance Project Plan
- TAT: Turnaround Time
- VOC: Volatile Organic Compound

A4. PROJECT ORGANIZATION

The individuals responsible for implementing this program, along with their organizational affiliations, are shown below. The project team outside of GEL Engineering, LLC (GEL) consists of staff from Charleston County, the South Carolina Department of Health and Environmental Control (DHEC), the Environmental Protection Agency (EPA), and GEL Laboratories, LLC (GEL Labs). Members of these organizations and their project roles are described below.

- Ms. Christine Durant serves as the Brownfields project manager for Charleston County.
- Mr. Jerry Stamps serves as the DHEC project coordinator. Mr. Stamps is responsible for reviewing and approving project documents to assure compliance with DHEC requirements.
- Mr. Brian Gross serves as the EPA Brownfields project officer. Mr. Gross is responsible for overseeing and monitoring the grant and insuring that the terms and conditions of the grant are met.
- Mr. Thomas Hutto of GEL serves as the consulting project manager and is responsible for implementing the technical and administrative portions of the grant. His responsibilities also include project scope development, schedule, and maintaining communication with the project team. Mr. Hutto also serves as the project principal in charge for GEL. Mr. Hutto has the authority and ability to commit team and project resources and serves as senior technical advisor/reviewer for the project.
- Mr. Thomas Putney of GEL serves as GEL's quality assurance manager and is responsible for implementation of the Site Specific Quality Assurance Project Plan (SSQAPP) Addendum.
- Mr. Adam MacConnell serves as the GEL Field Team Leader and Sampling Coordinator. Mr. MacConnell will coordinate field team efforts and communicate findings to the GEL project manager.
- Mr. Robert Pullano of GEL Labs serves as the Laboratory QA Officer and is responsible for the quality assurance of the sample analyses conducted at GEL Labs.

All drilling and sample collection activities will be performed by GEL. Analytical laboratory support for the assessment will be provided by the following laboratory:

GEL Laboratories, LLC
2040 Savage Road
P.O. Box 30712
Charleston, SC 29407
843-556-8171
Contact: Jake Crook

A5. PROBLEM DEFINITION AND BACKGROUND

The Post & Courier Property (The Property) consists of four commercial parcels (Charleston County TMS No. 459-05-03-115, -118, -124, and -133). The 2.8-acre site is located in the general area of Columbus, Meeting, and Line Streets in Charleston, Charleston County, South Carolina. The southern parcels of the Property are mostly asphalt-paved. The southeastern parcel is leased by a construction company for equipment and material storage. The southwestern parcel is used by adjacent businesses as a parking lot. The northern parcels are undeveloped and grassed. The general coordinates of the Property are: 32° 47' 42.36" N, 79° 56' 26.52" W. The Property is generally bound to the north by the Carlson Court right-of-way, residences, Pizza Hut, Line Street, and a storage facility; to the south across Columbus Street by a Piggly Wiggly grocery store; to the east by Meeting Street and various retail businesses; and to the west by a railroad right-of-way and the Post & Courier Facility. A Site Location Map is provided as Figure 1 and a Site Map with Surrounding Properties is provided as Figure 2.

A Phase I Environmental Site Assessment (Phase I ESA) was conducted in October, 2012 to identify recognized environmental conditions (RECs), historical RECs, and de minimis conditions associated with historical site use.

The Property is located in the Coastal Plain Physiographic Province. Coastal Plain soils are generally marine deposits of interbedded, limestone, sands, silts, clays, gravel and organics. Underlying these deposits are interbedded silty clayey sand and silty sandy clay which belong to the Ashley Member of the Cooper Group. The Cooper Marl, a hydraulic confining layer, is likely to be encountered at 50 to 75 feet below land surface (bls).

Shallow groundwater generally flows in directions subparallel to ground surface slopes and under the influence of gravity towards points of discharge such as creeks, swamps, drainage swales, or pumped groundwater wells. Based on previous investigations, groundwater underlying the Property is expected to flow towards the northeast.

The findings of the Phase I ESA are summarized below

- A review of Charleston City Directories and Sanborn Fire Insurance maps identified that the Arctic Ice and Coal Company was previously located on the southwest portion of the Property. Based on the likelihood of handling chemicals of concern (COCs), the former Arctic Ice and Coal Company is an onsite REC.
- The Property was previously occupied by the Packet Motor Lines and subsequently, Watkins Motor Lines. Multiple onsite RECs were identified in association with this previous development, including a former truck washing area, a former truck maintenance garage, an inactive oil/water separator, and four underground petroleum storage tanks (USTs), which were abandoned in place.
- The western adjacent property is developed with a railroad right-of-way. Fuels used to power trains typically contain metals and polynuclear aromatic hydrocarbons (PAHs). Furthermore, railroad ties are pressure treated with creosote or metal-

containing wood preservatives as a means of reducing rot and extending service life. Consequently, railroad ties commonly contain metals and/or PAHs. These COCs are sometimes elevated above surrounding background concentrations in the surface soils in the immediate area of a rail line; thus, the railroad right-of-way represents an offsite REC. However, PAHs often occur in urbanized areas as a result of a variety of anthropogenic sources other than railroad ties.

- Charleston City Directories and Sanborn Fire Insurance maps identify several offsite facilities in the proximity of the Property that likely handled COCs. These facilities include the former King Street Shell Station located at the intersection of King and Columbus Streets, two Southern Railroad Car Shops previously located on Line and Columbus Streets, the Charleston Dry Cleaning Company located on Columbus Street, and the Southern Railroad right-of-way described above located on the western adjacent property. Each of these facilities represents an offsite REC.
- Several offsite facilities are identified in various regulatory databases. However, none of the identified facilities represent offsite RECs based on their regulatory status, distance from the Property, and/or direction of groundwater flow.

A6. PROJECT/TASK DESCRIPTION AND TIMELINE

A Phase II ESA of the Property will further define potential soil and groundwater impacts in the areas of the identified onsite RECs, as well as the collection of groundwater samples on the Property to determine if COCs are present in groundwater due to the onsite RECs. The proposed scope of this Phase II ESA includes the collection of 18 soil samples from 9 locations, and the installation of 3 temporary groundwater monitoring wells. Figure 3 contains a timeline for the key tasks in the project, including SSQAPP review and approval, field activities and sampling, laboratory turnaround, and reporting activities. The rationale for each sample location (See Figure 4) and summary of analytical parameters is included on Table 1.

Analytical parameters will include: United States Environmental Protection Agency (EPA) Target Analyte List (TAL) metals (excluding cyanide), Target Compound List (TCL) volatile organic compounds (VOCs), and TCL semi-volatile organic compounds (SVOCs). TCL pesticides and TCL polychlorinated biphenyls (PCBs) will also be analyzed in soil and groundwater samples collected from areas adjacent to the oil-water separator and the former truck washing area. All analytical methods shall use appropriate detection levels to allow for comparison to specified criteria.

Soil analytical data will be compared to EPA Regional Screening Levels (RSLs) for residential and industrial use. Groundwater analytical results will be compared to the Maximum Contaminant Levels (MCLs) listed in the South Carolina Primary Drinking Water Regulations (R.61-58) or if not specified in R.61-58, to the RSLs for tapwater.

Both surface and subsurface soil samples will be collected at the locations shown on Figure 4. Surface soils will be collected from the 0-1 foot below land surface (bls), and subsurface soils will be collected from 2 feet bls to the water table. Soil samples will be

collected in 1-foot increments to the water table and examined for physical indications of impact, such as odors or staining will be noted. Soil from each interval will also be field screened using a photoionization detector (PID). In all cases the surface samples will be analyzed. The subsurface interval with the highest PID reading will be collected for laboratory analysis. If no physical indications of impact are noted and no elevated PID readings are measured, a discrete sample from the 1 foot interval directly above the water table will be collected for the subsurface sample. The soil samples adjacent to the oil-water separator and the former truck washing area will be analyzed for TCL PCBs and TCL Pesticides in addition to TCL, VOCs, TCL SVOCs and TAL Metals.

Temporary monitoring wells will be installed at the locations shown on Figure 4 by a South Carolina Certified Well Driller in accordance with South Carolina Well Standards and Regulations, 61-71. Based on water level data in the area, the water table is expected to be 6 to 10 feet bbls. Groundwater monitoring wells will be installed to a total depth of 8-12 feet bbls. Equipment used in the well installation process will be steam-cleaned prior to use at the site and between the installation of each monitoring well.

Once installed, each well will be developed by pumping with a peristaltic pump and Teflon lined tubing produce relatively low turbidity water. Groundwater samples will then be collected for analysis from each temporary monitoring well by decreasing the pumping rate to minimize aeration and filling laboratory grade sample bottles from the pump tubing. If turbidity is greater than 10 NTUs, filtered samples will also be collected for metals since turbidity can cause elevated metals concentrations in groundwater samples.

Analytical methods shall report appropriate detection limits to allow comparison to the EPA RSLs and MCLs in effect at the time this SSQAPP is approved. The results of the soil and groundwater sampling activities will be evaluated to determine the need for additional assessment activities and/or remedial actions as appropriate for future redevelopment of the Property.

A7. SPECIAL TRAINING REQUIREMENTS AND SPECIAL CERTIFICATIONS

Training and certification documentation are maintained at GEL's corporate office located at 2040 Savage Road in Charleston, SC. Information regarding GEL's Field Operation Records is provided in the Charleston County Generic QAPP.

A8. DOCUMENTATION AND RECORDS

Information regarding GEL Labs' Documentation and Records and GEL's Field Operation Records is provided in the Charleston County Generic QAPP.

B. MEASUREMENT AND DATA ACQUISITION

B1. SAMPLING PROCESS DESIGN AND SITE FIGURES

B.1.1 Sampling Process Design

This SSQAPP has been designed to assess potentially impacted environmental media, including site soil and groundwater. Sample locations are shown on Figure 4, and sample rational is provided on Table 1. The following sections discuss the sampling locations, rationale, and analysis designed to accomplish these tasks.

Soil borings will be installed at nine locations shown on Figure 4. Soil sample SS-01 will be collected to assess the former Truck Washing Area; SS-02 will be collected to assess the Inactive Oil-Water Separator; and SS-03 will be collected to assess the abandoned underground storage tank area. Soil Sample SS-04 and SS-05 will be collected to assess the former Auto Garage. Soil Samples SS-06 through SS-09 will be collected from each of the remaining parcels including the location of the former Arctic Ice & Coal Company, to provide sitewide soil quality data.

Three shallow temporary groundwater monitoring wells will be installed at the locations shown on Figure 4. Groundwater in the vicinity of the Property is expected to flow to the north or northeast. The locations of these monitoring wells were selected to assess specific RECs (Oil-Water Separator, Truck Wash and the UST). All three groundwater samples will be analyzed for TCL VOCs, TCL SVOCs and TAL Metals. Additionally, the groundwater samples adjacent to the oil-water separator and the former truck washing area will be analyzed for TCL PCB and TCL Pesticides. A schematic of the temporary monitoring well construction is shown on Figure 5.

B2. SAMPLING AND ANALYTICAL METHOD REQUIREMENTS

B2.1 Sample Collection

Copies of the field sampling and field decontamination standard operating procedures are provided in the Charleston County Generic QAPP.

B2.2 Analytical Methods

Table 2 provides a summary that includes the media to be sampled, analytical parameters, number of field and field quality control samples, analytical method reference, sampling method reference, sample containers, sample preservation, and holding time requirements.

B3. SAMPLE HANDLING AND CUSTODY REQUIREMENTS

B3.1 Sample Labeling

All samples collected for the Post and Courier site will be designated as site-specific "PC" samples. Soil samples will be further designated as "SS" with a location and depth notation. The nine discrete soil sample locations will be identified by sequential numbers beginning with 01. Groundwater samples will be designated as "MW." The three groundwater monitoring well locations will be identified by sequential numbers beginning with 01. Duplicate samples will have the same sample identification number as the original sample with a "D" suffix. Trip blanks will be designated "TB," field blanks will be designated "FB," and equipment blanks (if

necessary) will be labeled "EB." Trip blanks, field blanks, and equipment blanks will be identified by the sample collection date. The following are examples of sample identification:

PC-SS-01-0-2	Surface soil sample collected from the 01 boring location at a depth of 0 to 2 foot bls
PC-SS-01-2-4	Subsurface soil sample collected from the 01 boring location at a depth of 2 to 4 feet bls
PC-SS-01-2-4-D	Duplicate subsurface soil sample collected from the 01 boring location at a depth of 2 to 4 feet bls
PC-MW-03	Groundwater sample collected from the 04 temporary monitoring well location
PC-MW-03-D	Groundwater duplicate sample collected from the 04 temporary monitoring well location
PC-TB-041513	Trip blank collected on April 15, 2013
PC-FB-041513	Field blank collected on April 15, 2013
PC-EB-041513	Equipment blank collected on April 15, 2013

B3.2 Sample Chain of Custody Procedures

Information regarding GEL and GEL Labs Field Custody Procedures, Laboratory Custody Procedures, and Sample Handling and Packaging is provided in the Charleston County QAPP.

B4. ANALYTICAL METHODS AND REQUIREMENTS

GEL Laboratories will analyze the soil and groundwater samples for TCL VOCs via EPA Method 8260B, TCL SVOCs via EPA Method 8270D, TAL Metals Vis EPA Method 6010C, TCL PCB via EPA Method 8082A, and TCL Pesticides via EPA Method 8081B. Specific information regarding the analytical methodology for the soil and groundwater samples is provided in the Charleston County Generic QAPP.

B5. FIELD QUALITY CONTROL REQUIREMENTS

Table 2 provides a summary the number of field and field quality control samples to be collected during site activities, including trip blanks, field blanks and equipment rinsate blanks.

B6. LABORATORY QUALITY CONTROL REQUIREMENTS

Information regarding the GEL Labs Laboratory Quality Control Requirements is provided in the Charleston County Generic QAPP. As shown in Table 2, duplicate samples and trip blanks will provide additional quality control for the laboratory analysis.

B7. FIELD EQUIPMENT CALIBRATION AND CORRECTIVE ACTION

B7.1 Field Calibration

Calibration of the Rae System MiniRAE 2000 photoionization detector (PID) will be performed in accordance with the manufacturers Operation and Maintenance Manual (RAE Systems, Document No.: 001-4001-000, Revision E, 2005). The manual, including calibration instructions, is included in Appendix I of the Generic QAPP. Calibration of each meter will be conducted each morning before commencement of field activities. Additionally, the calibration will be verified in the field with a known standard gas to insure that instrument calibration is accurate and has not experienced "instrument drift." Calibration verification will be conducted every 4 hours, when there is a significant change in climatic conditions and/or after any break in sampling activities. Calibration logs will be retained for each day of field activity.

B7.2 Field Corrective Action

Information regarding Field Corrective Action is provided in the Charleston County Generic QAPP.

B8. LABORATORY INSTRUMENT CALIBRATION AND CORRECTIVE ACTION

Information regarding GEL Labs Laboratory Instrument Calibration and Corrective Action is provided in the Charleston County Generic QAPP.

B9. ANALYTICAL SENSITIVITY AND PROJECT CRITERIA

Information regarding the GEL Laboratories Analytical Sensitivity and Project Criteria is provided in the Charleston County Generic QAPP.

B10. DATA MANAGEMENT AND DOCUMENTATION

Information regarding Data Management and Documentation is provided in the Charleston County Generic QAPP. Any changes to the information provided in the Generic QAPP is outlined and discussed in the above sections. These changes will be tracked and incorporated into the Charleston County Generic QAPP.

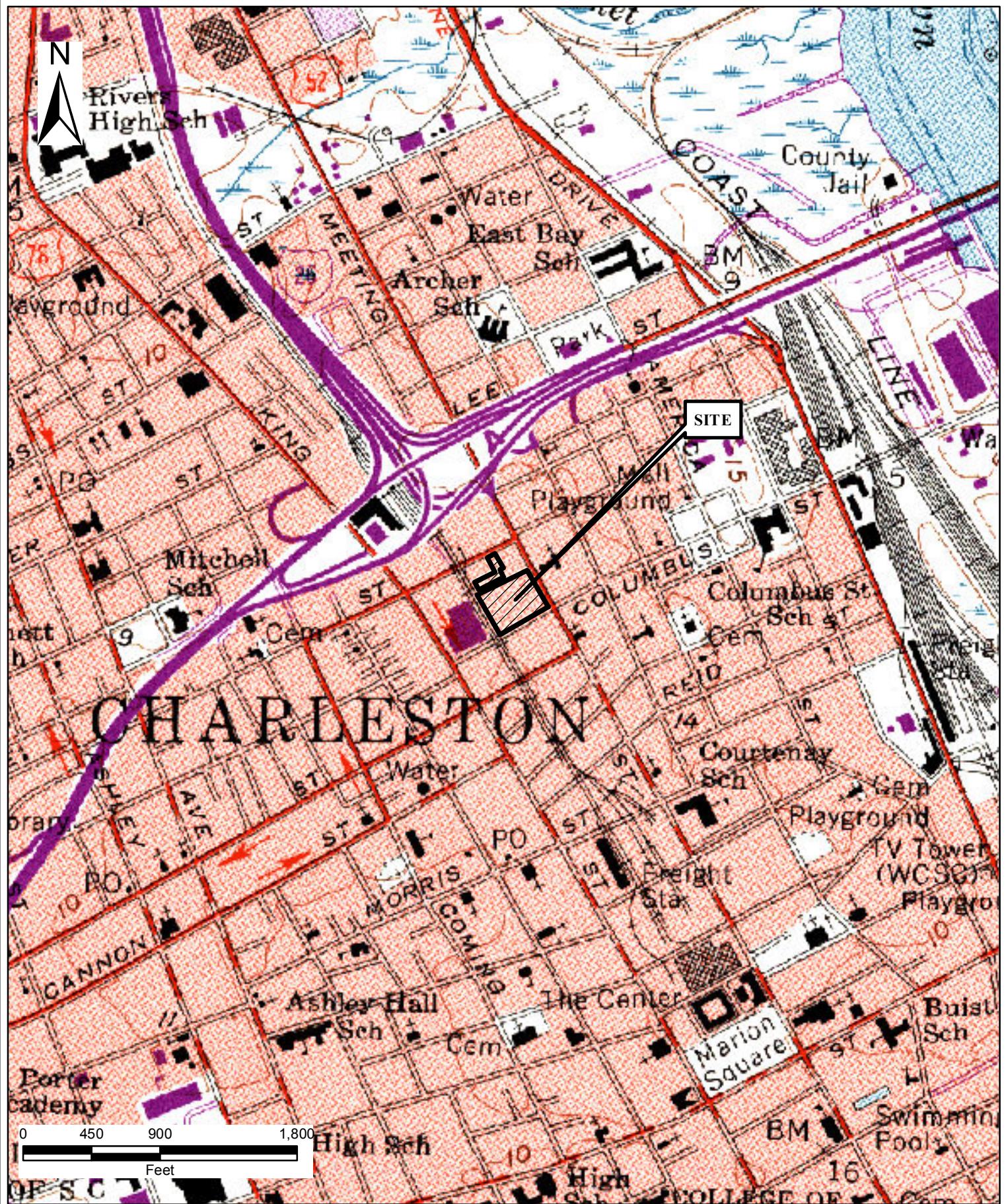
C. ASSESSMENT AND OVERSIGHT ELEMENTS

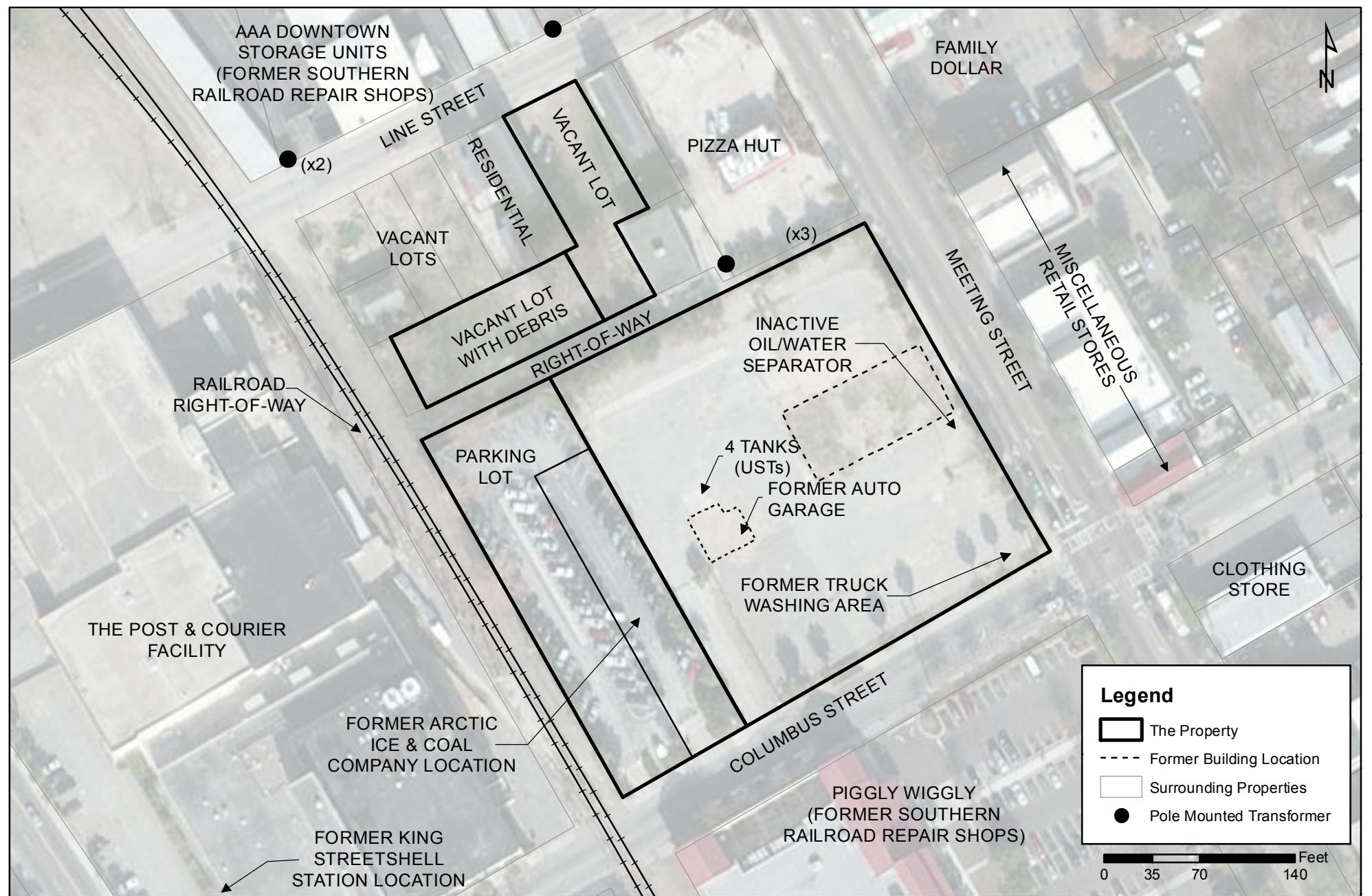
Information regarding Assessment and Oversight Elements, including Response Actions, Procedures, and Corrective Actions, and Project Reports, is provided in the Charleston County Generic QAPP.

D. DATA EVALUATION ELEMENTS

Information regarding Data Evaluation Elements, including Field Data Evaluation and GEL Laboratories Laboratory Data Evaluation, is provided in the Charleston County Generic QAPP.

FIGURES

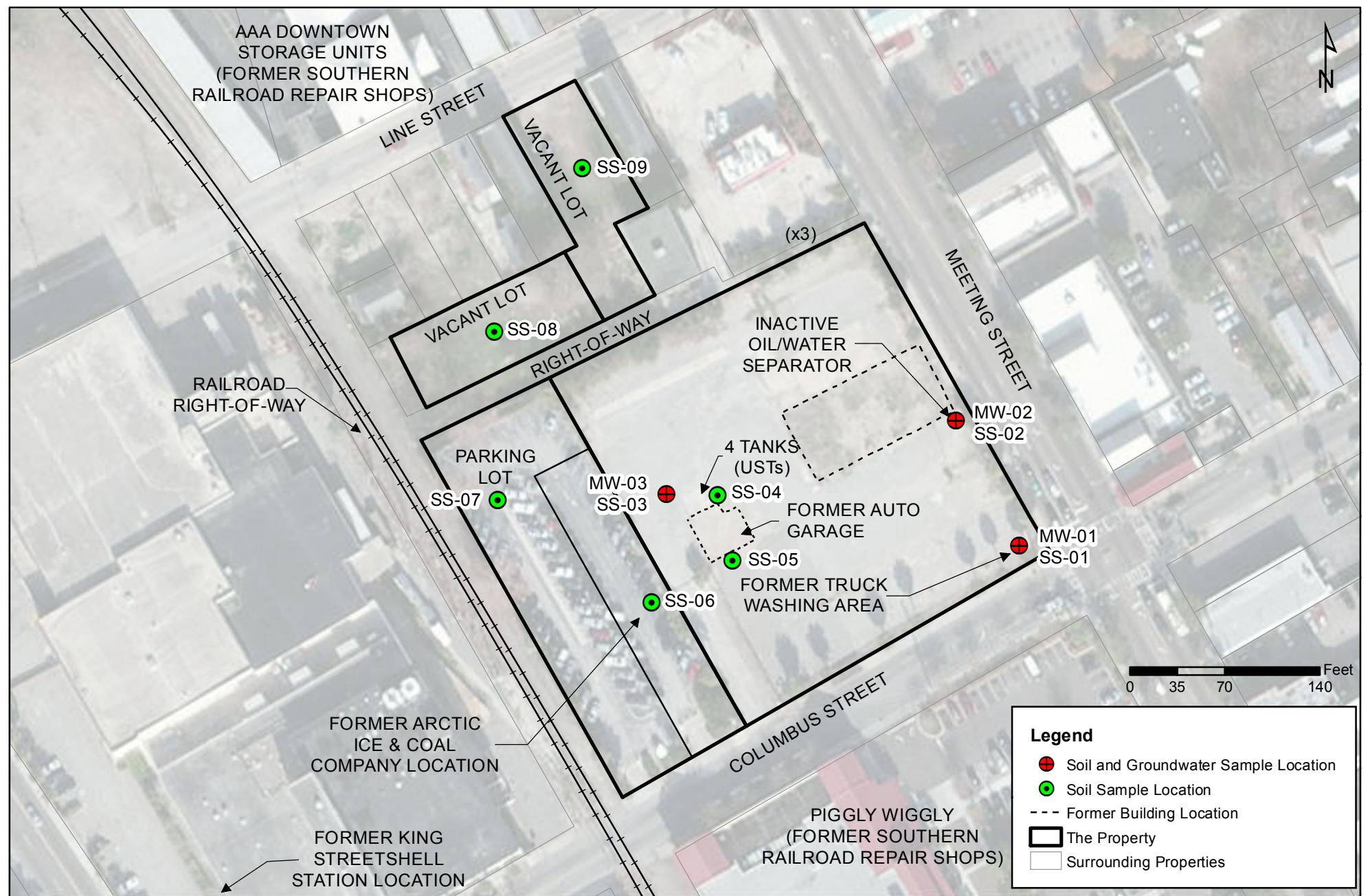




Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Time Following DHEC and EPA Approval of SSQAPP										
Site Prep (e.g. surveying, subsurface utilities, staging, etc.)										
Soil and Groundwater Sampling										
Analytical Data (21 day TAT)										
Data Review										
Report Preparation										

Figure 3
Work Breakdown and Schedule

Post & Courier Property
Columbus, Meeting, and Line Streets
Charleston, South Carolina



Legend

- Soil and Groundwater Sample Location
- Soil Sample Location
- - - Former Building Location
- The Property
- Surrounding Properties

GEL Engineering, LLC
a Member of THE GEL GROUP, INC. **GEL**

P.O. BOX 30712 CHARLESTON, SC 29417
2040 SAVAGE ROAD 29407
(843) 769-7378 FAX (843) 769-7397
WWW.GEL.COM
ENGINEERING ENVIRONMENTAL ANALYTICAL

PROJECT: char00712

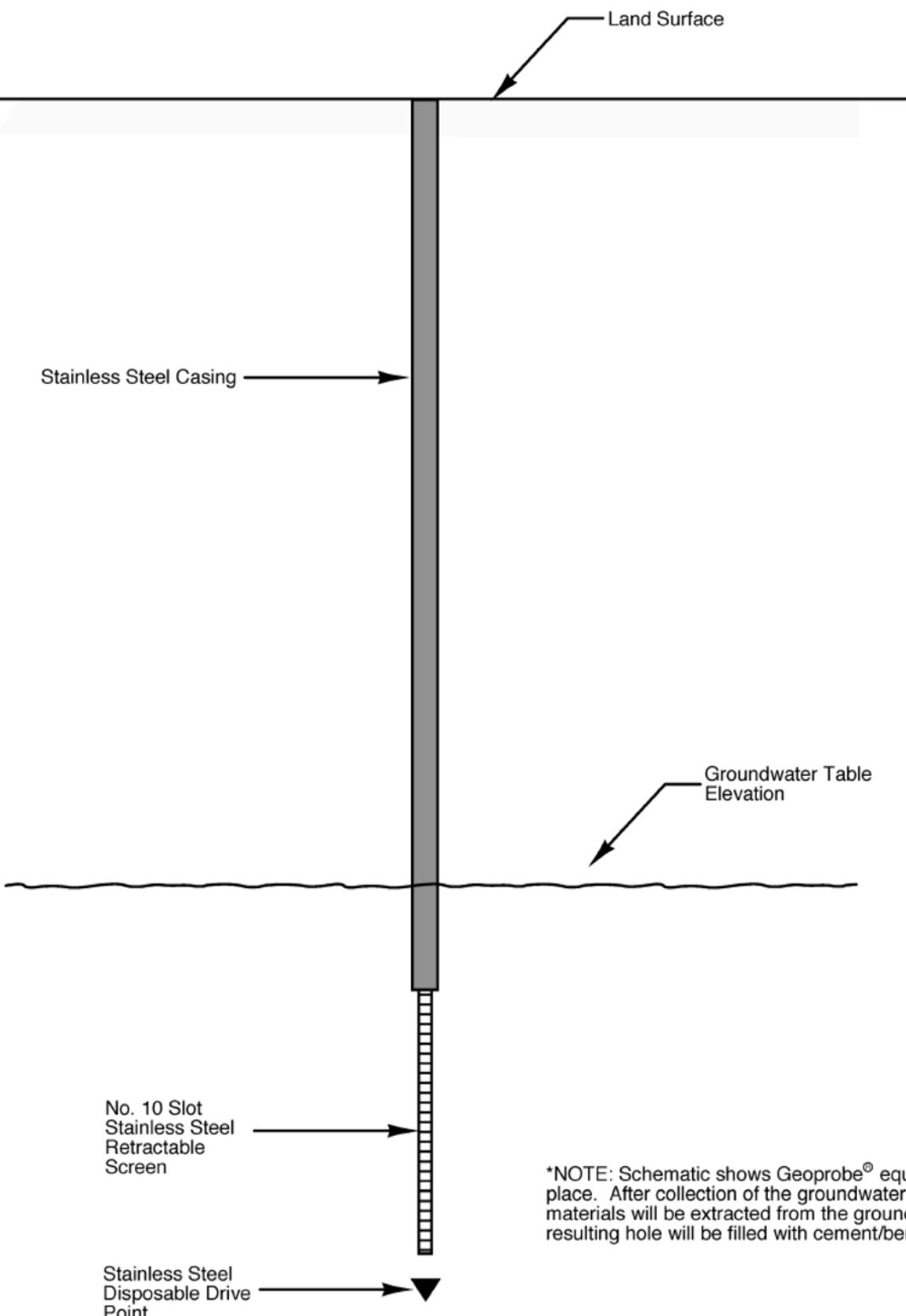
SITE SPECIFIC QUALITY ASSURANCE PROJECT PLAN
POST & COURIER PROPERTY
COLUMBUS, MEETING, AND LINE STREETS
CHARLESTON, SOUTH CAROLINA

DATE: JANUARY 30, 2013

PROPOSED SOIL AND GROUNDWATER
SAMPLE LOCATIONS

FIGURE
4

CREATED BY: RCR APPRV BY: ABM



TABLES

Table 1: Field Sample Rational
Site Specific Quality Assurance Project Plan (SSQAPP)
Post and Courier Property

Sample Type	Sample ID	Sample Location/Rationale	Analytical Parameters
Surface (0-1' bls) and Subsurface Soil (depth to be determined in field)	PC-SS-01	Former Truck Washing Area	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
	PC-SS-02	Inactive Oil-Water Separator	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
	PC-SS-03	Abandoned Underground Storage Tanks	TCL VOCs, TCL SVOCs, TAL Metals
	PC-SS-04	Former Auto Garage	TCL VOCs, TCL SVOCs, TAL Metals
	PC-SS-05	Former Auto Garage	TCL VOCs, TCL SVOCs, TAL Metals
	PC-SS-06	Former Arctic Ice and Coal Facility	TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
	PC-SS-07	Western Parcel	TCL VOCs, TCL SVOCs, TAL Metals
	PC-SS-08	Northwestern Parcel	TCL VOCs, TCL SVOCs, TAL Metals
	PC-SS-09	Northern Parcel	TCL VOCs, TCL SVOCs, TAL Metals
Groundwater	PC-MW-01	Former Truck Washing Area	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
	PC-MW-02	Inactive Oil-Water Separator	TCL VOCs, TCL SVOCs, TCL Pesticides, TCL PCBs, TAL Metals
	PC-MW-03	Abandoned Underground Storage Tanks	TCL VOCs, TCL SVOCs, TAL Metals

Notes:

1 - Soil sample depth measured in feet below land surface.

2 - Groundwater and surface water sample analysis includes total and dissolved metals analysis.

Table 2: Field Sample and Field QC Sample Summary
Site Specific Quality Assurance Project Plan (SSQAPP)
Post and Courier Property

Sample Type	Sample Matrix	Parameter	Number of Samples	Sampling Method Reference Number	Analytical Method Reference	Container Type	Container Volume	Sample Preservation	Comments
Field Samples	Soil	VOCs, SVOCS, Metals	14	SESDPROC-300-R1	SW846 8260B	O2Si Kits/Amber Glass/Amber Glass	5 g / 8 oz / 8 oz	4°C, Either preserved or frozen by the laboratory within 48 hours	*GEL has chosen not to preserve these in the field per the EPA method due to matrix issues with some soils. Samples must be either preserved or frozen by the laboratory within 48 hours of sample collection.
	Soil	PCBs, Pesticides	4	SESDPROC-300-R1	SW846 8260B	O2Si Kits/Amber Glass/Amber Glass	5 g / 8 oz / 8 oz	4°C, Either preserved or frozen by the laboratory within 48 hours	*GEL has chosen not to preserve these in the field per the EPA method due to matrix issues with some soils. Samples must be either preserved or frozen by the laboratory within 48 hours of sample collection.
	Groundwater	VOCs, SVOCS, Metals	3	SESDPROC-301-R1	SW846 8260B	Glass Vials/Amber Glass/Nalgene	40 ml / 1000 ml (2) / 250 ml	4°C, HCl (pH<2) / none / HNO3 (pH<2)	Dissolved metals samples will be preseved after field filtration
		PCBs, Pesticides	2		SW846 3005/6010C	Amber Glass	1000 ml (2)	None	
Field Duplicate	Soil	VOCs, SVOCS, Metals	1/Sampling Day	SESDPROC-011-R2	SW846 8260B/8270B/6010C	O2Si Kits/Amber Glass/Amber Glass	5 g / 8 oz / 8 oz	4 degrees C, Either preserved or frozen by the laboratory within 48 hours	GEL has chosen not to preserve these in the field per the EPA method due to matrix issues with some soils. Samples must be either preserved or frozen by the laboratory within 48 hours of sample collection.
	Groundwater	VOCs, SVOCS, Metals	1/Sampling Day	SESDPROC-011-R2	SW846 8260B/8270B/6010C	Glass Vials/Amber Glass/Nalgene	40 ml / 1000 ml (2) / 250 ml	4 degrees C, Metals - HNO3 (pH<2)	
Field Blank	Deionized Water	VOCs, SVOCS, Metals	1/Sampling Day	SESDPROC-011-R2	SW846 8260B	Glass Vials/Amber Glass/Nalgene	40 ml / 1000 ml (2) / 250 ml	4°C	-
Trip Blank	Deionized Water	TCL VOCs	1/Sampling Day	SESDPROC-011-R2	SW846 8260B	Glass Vials	40 ml	4°C	-
Equipment / Rinsate Blank	Deionized Water	VOCs, SVOCS, Metals	1/Sampling Day	SESDPROC-011-R2	SW846 8260B/8270B/6010C	Glass Vials/Amber Glass/Nalgene	40 ml / 1000 ml (2) / 250 ml	4 degrees C, Metals - HNO3 (pH<2)	-

APPENDIX II

SOIL BORING AND MONITORING WELL

INSTALLATION LOGS

(On Compact Disc)

GEL		<p style="text-align: center;">Soil Boring Log CPL Engineering, LLC <i>A Member of the GEL Group, Inc.</i> Charleston, South Carolina</p>						Site Name: PTE				
						Boring ID: PCSS-01						
						Lat:		Lon:				
						Page 1 of 1						
Project Code: Char 00712		Date: 4/1/13		Logged by: RSG MacCannell								
GEL Personnel: BG TN, SR		Drilling Method: DPC										
Drilling Contractor: GEL		Certified Well Driller #: 1830		Depth of Sample(s): 0-1, 4-5								
Depth (ft bds)	Soil Sampled	Depth (m)	Rec %	PID/FID	Soil Type	Color	Moisture	Sand Grain Size %			Clay %	Comments
								C	M	F		
1	0				Sand w/ clay to gravel	Tan, orange Red	Damp					
2	0				Sand	Tan	"				Poorly graded	
3	0				"	"	"					
4	0				Sand w/ Clay	Tan, Orange Red	Moist				Poorly Graded	
5	0				Clayey Sand	"	Moist					
6	0				"	" Gray	Moist wet					
7	0				Sand	Tan, Gray	Sat.					
8	0				"	"	Sat					
9												
10												
11												
12												

V measured at 5.26

SOIL BORING LOG

GEL Engineering, LLC

A Member of the GEL Group, Inc.

Charleston, South Carolina

Boring No.

P+C
PC-SS-09

Project Code: Char 007/2 Page: of

Depth of Samples Sent to Lab: _____

Date: _____

GEL Personnel: _____

Drilling method: _____

Drilling Contractor: _____

SC Certified Driller: _____ SC Driller Cert. No: _____

Boring No.

P + C

PC-55-08

SOIL BORING LOG

GEL Engineering, LLC

A Member of the GEL Group, Inc.

Charleston, South Carolina

Project Code: Char00712 Page: of

Depth of Samples Sent to Lab: _____

Date: _____

GEL Personnel: _____

Drilling method: _____

Drilling Contractor: _____

SC Certified Driller:

SC Driller Cert. No: _____



Water Well Record

Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION: Name: Post & Courier (last) (first) Address: 134 Columbus Street		7. PERMIT NUMBER:	
City: Charleston State: SC Zip: 29403-0000 Telephone: Work: (843) 577-7111 Home:		8. USE: <input type="checkbox"/> Residential <input type="checkbox"/> Public Supply <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Process <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well <input type="checkbox"/> Emergency <input type="checkbox"/> Cable tool <input type="checkbox"/> Other <input type="checkbox"/> Replacement	
2. LOCATION OF WELL: COUNTY: Charleston Name: Post & Courier Property Street Address: Columbus, Meeting, and Line Streets City: Charleston, SC Zip:		9. WELL DEPTH (completed) Date Started: 4/1/13 12 ft Date Completed: 4/1/13	
Latitude: Longitude:		10. CASING: <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Welded Diam.: 0.625" Height: Above <input type="checkbox"/> Below <input type="checkbox"/> Type: <input type="checkbox"/> PVC <input type="checkbox"/> Galvanized <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other Surface _____ ft. _____ in. to 8 ft. depth Weight _____ lb./ft. _____ in. to _____ ft. depth Drive Shoe? <input type="checkbox"/> Yes <input type="checkbox"/> No	
3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:		11. SCREEN: Type: Slotted Stainless Steel Diam.: 1" Slot/Gauge. 0.01 Length: 4' Set Between: 8 ft. and 12 ft. NOTE: MULTIPLE SCREENS ft. and ft. USE SECOND SHEET Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No	
4. ABANDONMENT: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours	
Grouted Depth: from TWD ft. to LS ft.		13. PUMPING LEVEL Below Land Surface. NA ft. after hrs. Pumping G.P.M. Pumping Test: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No Yield: _____	
Formation Description		*Thickness of Stratum	Depth to Bottom of Stratum
Temporary Well installed with			
Direct Push Technology			
Abandoned in accordance with			
SC Well Standards R.61-71			
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)			
5. REMARKS: PC-MW-01		14. WATER QUALITY Chemical Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Bacterial Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please enclose lab results.	
		15. ARTIFICIAL FILTER (filter pack) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Installed from _____ ft. to _____ ft. Effective size _____ Uniformity Coefficient _____	
		16. WELL GROUTED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Neel Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Bentonite/Cement <input type="checkbox"/> Other _____ Depth: From _____ ft. to _____ ft.	
		17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. direction Type NA Well Disinfected <input type="checkbox"/> Yes <input type="checkbox"/> No Type: _____ Amount: _____	
		18. PUMP: Date installed: _____ Not installed <input checked="" type="checkbox"/> Mfr. Name: _____ Model No.: _____ H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet (shallow) <input type="checkbox"/> Turbine <input type="checkbox"/> Jet (deep) <input type="checkbox"/> Reciprocating <input type="checkbox"/> Centrifugal	
		19. WELL DRILLER: Steve Rucker CERT. NO.: 1330 Address: (Print) _____ Level: A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D (circle one) GEL Engineering, LLC, <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 2040 Savage Road, Charleston, SC Telephone No.: 843-769-7397 Fax No.: 843-769-7397	
		20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.	
		Signed:  Well Driller Date: 4/1/13	
		If D Level Driller, provide supervising driller's name:	
6. TYPE: <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/> Dug <input type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Driven <input type="checkbox"/> Cable tool <input type="checkbox"/> Other			



Water Well Record

Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION: Name: Post & Courier (last) (first) Address: 134 Columbus Street			7. PERMIT NUMBER:		
City: Charleston State: SC Zip: 29403-0000			8. USE: <input type="checkbox"/> Residential <input type="checkbox"/> Public Supply <input type="checkbox"/> Process <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Emergency <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well <input type="checkbox"/> Replacement		
Telephone: Work: (843) 577-7111 Home:			9. WELL DEPTH (completed) Date Started: 4/1/13 12 ft. Date Completed: 4/1/13		
2. LOCATION OF WELL: COUNTY: Charleston Name: Post & Courier Property Street Address: Columbus, Meeting, and Line Streets City: Charleston, SC Zip:			10. CASING: <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Welded Diam.: 0.625" Type: <input type="checkbox"/> PVC <input type="checkbox"/> Galvanized <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other in. to 8 ft. depth in. to ft. depth Height: Above <input type="checkbox"/> Below <input type="checkbox"/> Surface _____ ft. Weight _____ lb./ft. Drive Shoe? <input type="checkbox"/> Yes <input type="checkbox"/> No		
3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:			11. SCREEN: Type: Slotted Stainless Steel Diam.: 1" Slot/Gauge: 0.01 Length: 4' Set Between: 8 ft. and 12 ft. NOTE: MULTIPLE SCREENS ft. and ft. USE SECOND SHEET Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No		
4. ABANDONMENT: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Grouted Depth: from TWD ft. to LS ft.			12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours		
Formation Description			13. PUMPING LEVEL Below Land Surface. NA ft. after hrs. Pumping G.P.M. Pumping Test: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No Yield: _____		
Temporary Well installed with			14. WATER QUALITY Chemical Analysis <input type="checkbox"/> Yes <input type="checkbox"/> No Bacterial Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please enclose lab results.		
Direct Push Technology			15. ARTIFICIAL FILTER (filter pack) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Installed from _____ ft. to _____ ft. Effective size _____ Uniformity Coefficient _____		
Abandoned in accordance with			16. WELL GROUTED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Bentonite/Cement <input type="checkbox"/> Other _____ Depth: From _____ ft. to _____ ft.		
SC Well Standards R.61-71			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. direction Type NA Well Disinfected <input type="checkbox"/> Yes <input type="checkbox"/> No Type: _____ Amount: _____		
			18. PUMP: Date installed: _____ Not installed <input checked="" type="checkbox"/> Mfr. Name: _____ Model No.: _____ H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet (shallow) <input type="checkbox"/> Turbine <input type="checkbox"/> Jet (deep) <input type="checkbox"/> Reciprocating <input type="checkbox"/> Centrifugal		
			19. WELL DRILLER: Steve Rucker CERT. NO.: 1330 Address: (Print) _____ Level: A B C D (circle one) GEL Engineering, LLC, <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 2040 Savage Road, Charleston, SC Telephone No.: 843-707-1310 Fax No.: 843-769-7397		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.		
5. REMARKS: PC-MW-02			Signed:  Well Driller Date: 4/1/13		
6. TYPE: <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/> Dug <input type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Driven <input type="checkbox"/> Cable tool <input type="checkbox"/> Other			If D Level Driller, provide supervising driller's name:		



Water Well Record

Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION: Name: Post & Courier (last) (first) Address: 134 Columbus Street City: Charleston State: SC Zip: 29403-0000			7. PERMIT NUMBER:		
Telephone: Work: (843) 577-7111 Home:			8. USE: <input type="checkbox"/> Residential <input type="checkbox"/> Public Supply <input type="checkbox"/> Irrigation <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Process <input type="checkbox"/> Test Well <input checked="" type="checkbox"/> Monitor Well <input type="checkbox"/> Emergency <input type="checkbox"/> Cable tool <input type="checkbox"/> Other <input type="checkbox"/> Replacement		
2. LOCATION OF WELL: COUNTY: Charleston Name: Post & Courier Property Street Address: Columbus, Meeting, and Line Streets City: Charleston, SC Zip:			9. WELL DEPTH (completed) Date Started: 4/1/13 12 ft. Date Completed 4/1/13		
Latitude: Longitude:			10. CASING: <input checked="" type="checkbox"/> Threaded <input type="checkbox"/> Welded Diam.: 0.625" Type: <input type="checkbox"/> PVC <input type="checkbox"/> Galvanized <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other in. to 8 ft. depth in. to ft. depth		
3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:			11. SCREEN: Type: Slotted Stainless Steel Diam.: 1" Slot/Gauge: 0.01 Length: 4' Set Between: 8 ft. and 12 ft. ft. and ft. Sieve Analysis <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No NOTE: MULTIPLE SCREENS USE SECOND SHEET		
4. ABANDONMENT: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Grouted Depth: from TWD ft. to LS ft.			12. STATIC WATER LEVEL ft. below land surface after 24 hours		
Formation Description *Thickness of Stratum Depth to Bottom of Stratum			13. PUMPING LEVEL Below Land Surface. NA ft. after hrs. Pumping G.P.M. Pumping Test: <input type="checkbox"/> Yes (please enclose) <input checked="" type="checkbox"/> No Yield:		
Temporary Well installed with			14. WATER QUALITY Chemical Analysis <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Bacterial Analysis <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Please enclose lab results.		
Direct Push Technology			15. ARTIFICIAL FILTER (filter pack) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Installed from ft. to ft. Effective size Uniformity Coefficient		
Abandoned in accordance with			16. WELL GROUTED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Bentonite/Cement <input type="checkbox"/> Other Depth: From ft. to ft.		
SC Well Standards R.61-71			17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: fl. direction Type NA Well Disinfected <input type="checkbox"/> Yes <input type="checkbox"/> No Type: Amount:		
			18. PUMP: Date installed: Not installed Mfr. Name: Model No.: H.P. Volts Length of drop pipe ft. Capacity gpm TYPE: <input type="checkbox"/> Submersible <input type="checkbox"/> Jet (shallow) <input type="checkbox"/> Turbine <input type="checkbox"/> Jet (deep) <input type="checkbox"/> Reciprocating <input type="checkbox"/> Centrifugal		
			19. WELL DRILLER: Steve Rucker CERT. NO.: 1330 Address: (Print) Level: A B C D (circle one) GEL Engineering, LLC, 2040 Savage Road, Charleston, SC Telephone No.: 843-707-1516 Fax No.: 843-769-7397		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)			20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.		
5. REMARKS: PC-MW-03			Signed: <i>Steve Rucker</i> Date: 4/1/13 Well Driller		
6. TYPE: <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/> Dug <input type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Driven <input type="checkbox"/> Cable tool <input type="checkbox"/> Other			If O Level Driller, provide supervising driller's name:		

APPENDIX III

**ANALYTICAL LABORATORY DATA SUMMARY, LABORATORY CERTIFICATES OF
ANALYSIS, AND CHAIN OF CUSTODY DOCUMENTATION**

(On Compact Disc)



April 16, 2013

Mr. Adam MacConnell
GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina 29417

Re: Phase II ESA, Post and Courier
Work Order: 322828

Dear Mr. MacConnell:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 02, 2013. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4422.

Sincerely,

Jake Crook
Project Manager

Purchase Order: Gel Quote
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report
for**
GEEL003 GEL Engineering, LLC
Client SDG: 322828 GEL Work Order: 322828

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- E Concentration of the target analyte exceeds the instrument calibration range
- H Analytical holding time was exceeded
- J Value is estimated
- P Organics—The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- h Preparation or preservation holding time was exceeded

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Jake Crook.

Reviewed by _____



GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-02	Project:	CHAR00712C
Sample ID:	322828001	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 12:10		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0910	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum		5510	68.0	200	ug/L	1	LS	04/04/13	1714	1292561	2
Barium		31.6	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	J	1.05	1.00	5.00	ug/L	1					
Calcium		65600	50.0	200	ug/L	1					
Chromium		11.1	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron		3430	30.0	100	ug/L	1					
Magnesium		11800	110	300	ug/L	1					
Manganese		44.5	2.00	10.0	ug/L	1					
Nickel	J	2.31	1.50	5.00	ug/L	1					
Potassium		17700	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		10200	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium		13.9	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1201	1292561	3
Arsenic	U	ND	5.00	30.0	ug/L	1					
Lead	J	3.91	3.30	10.0	ug/L	1	LS	04/09/13	1351	1292561	4
Selenium	J	8.14	6.00	30.0	ug/L	1	LS	04/15/13	1419	1292561	5
Semi-Volatile-GC/MS											
8270D Semivolatile Analysis by Separatory Funnel "As Received"											
1,1'-Biphenyl	U	ND	3.00	10.0	ug/L	1	AGS1	04/03/13	2155	1292495	6
1,2,4,5-Tetrachlorobenzene	U	ND	3.00	10.0	ug/L	1					
2,3,4,6-Tetrachlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dimethylphenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dinitrophenol	U	ND	5.00	20.0	ug/L	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-02 Project: CHAR00712C
Sample ID: 322828001 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

2,4-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2,6-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2-Chloronaphthalene	U	ND	0.300	1.00	ug/L	1
2-Chlorophenol	U	ND	3.00	10.0	ug/L	1
2-Methyl-4,6-dinitrophenol	U	ND	3.00	10.0	ug/L	1
2-Methylnaphthalene	U	ND	0.300	1.00	ug/L	1
2-Nitrophenol	U	ND	3.00	10.0	ug/L	1
3,3'-Dichlorobenzidine	U	ND	3.00	10.0	ug/L	1
4-Bromophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Chloro-3-methylphenol	U	ND	3.00	10.0	ug/L	1
4-Chloroaniline	U	ND	3.30	10.0	ug/L	1
4-Chlorophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Nitrophenol	U	ND	3.00	10.0	ug/L	1
Acenaphthene	U	ND	0.300	1.00	ug/L	1
Acenaphthylene	U	ND	0.300	1.00	ug/L	1
Acetophenone	U	ND	3.00	10.0	ug/L	1
Anthracene	U	ND	0.300	1.00	ug/L	1
Atrazine	U	ND	3.00	10.0	ug/L	1
Benzaldehyde	U	ND	5.00	10.0	ug/L	1
Benzo(a)anthracene	U	ND	0.300	1.00	ug/L	1
Benzo(a)pyrene	U	ND	0.440	1.00	ug/L	1
Benzo(b)fluoranthene	U	ND	0.300	1.00	ug/L	1
Benzo(ghi)perylene	U	ND	0.300	1.00	ug/L	1
Benzo(k)fluoranthene	U	ND	0.300	1.00	ug/L	1
Butylbenzylphthalate	U	ND	3.00	10.0	ug/L	1
Caprolactam	U	ND	3.00	10.0	ug/L	1
Carbazole	U	ND	0.300	1.00	ug/L	1
Chrysene	U	ND	0.300	1.00	ug/L	1
Di-n-butylphthalate	U	ND	3.00	10.0	ug/L	1
Di-n-octylphthalate	U	ND	3.00	10.0	ug/L	1
Dibenzo(a,h)anthracene	U	ND	0.300	1.00	ug/L	1
Dibenzo-furan	U	ND	3.00	10.0	ug/L	1
Diethylphthalate	U	ND	3.00	10.0	ug/L	1
Dimethylphthalate	U	ND	3.00	10.0	ug/L	1
Diphenylamine	U	ND	3.00	10.0	ug/L	1
Fluoranthene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-02	Project:	CHAR00712C
Sample ID:	322828001	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

Fluorene	U	ND	0.300	1.00	ug/L	1
Hexachlorobenzene	U	ND	3.00	10.0	ug/L	1
Hexachlorobutadiene	U	ND	3.00	10.0	ug/L	1
Hexachlorocyclopentadiene	U	ND	3.00	10.0	ug/L	1
Hexachloroethane	U	ND	3.00	10.0	ug/L	1
Indeno(1,2,3-cd)pyrene	U	ND	0.300	1.00	ug/L	1
Isophorone	U	ND	3.00	10.0	ug/L	1
N-Nitrosodipropylamine	U	ND	3.00	10.0	ug/L	1
Naphthalene	U	ND	0.300	1.00	ug/L	1
Nitrobenzene	U	ND	3.00	10.0	ug/L	1
Pentachlorophenol	U	ND	3.00	10.0	ug/L	1
Phenanthrene	U	ND	0.300	1.00	ug/L	1
Phenol	U	ND	3.00	10.0	ug/L	1
Pyrene	U	ND	0.300	1.00	ug/L	1
bis(2-Chloroethoxy)methane	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroethyl) ether	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroisopropyl)ether	U	ND	3.00	10.0	ug/L	1
bis(2-Ethylhexyl)phthalate	U	ND	3.00	10.0	ug/L	1
m,p-Cresols	U	ND	3.00	10.0	ug/L	1
m-Nitroaniline	U	ND	3.00	10.0	ug/L	1
o-Cresol	U	ND	3.00	10.0	ug/L	1
o-Nitroaniline	U	ND	3.00	10.0	ug/L	1
p-Nitroaniline	U	ND	3.00	10.0	ug/L	1

Semi-Volatiles-PCB

SW846 3535A/8082A PCB Liquids "As Received"

Aroclor-1016	U	ND	0.0333	0.100	ug/L	1	YS1	04/15/13	1124	1294339	7
Aroclor-1221	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1232	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1242	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1248	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1254	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1260	U	ND	0.0333	0.100	ug/L	1					

Semi-Volatiles-Pesticide

SW846 3535A/8081B Liquid "As Received"

4,4'-DDD	U	ND	0.010	0.040	ug/L	1	JXM	04/05/13	0853	1292713	9
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Certificate of Analysis

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Contact: Charleston, South Carolina 29417
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Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-02	Project:	CHAR00712C
Sample ID:	322828001	Client ID:	GEEL003

Semi-Volatiles-Pesticide

SW846 3535A/8081B Liquid "As Received"

4,4'-DDE	U	ND	0.010	0.040	ug/L	1					
4,4'-DDT	U	ND	0.010	0.040	ug/L	1					
Aldrin	U	ND	0.00665	0.020	ug/L	1					
Chlordane (tech.)	U	ND	0.0765	0.250	ug/L	1					
Dieldrin	U	ND	0.010	0.040	ug/L	1					
Endosulfan I	U	ND	0.00665	0.020	ug/L	1					
Endosulfan II	U	ND	0.010	0.040	ug/L	1					
Endosulfan sulfate	U	ND	0.010	0.040	ug/L	1					
Endrin	U	ND	0.010	0.040	ug/L	1					
Endrin aldehyde	U	ND	0.00665	0.040	ug/L	1					
Endrin ketone	U	ND	0.010	0.040	ug/L	1					
Heptachlor	U	ND	0.00665	0.020	ug/L	1					
Heptachlor epoxide	U	ND	0.00665	0.020	ug/L	1					
Methoxychlor	U	ND	0.050	0.200	ug/L	1					
Toxaphene	U	ND	0.150	0.500	ug/L	1					
alpha-BHC	U	ND	0.00665	0.020	ug/L	1					
delta-BHC	U	ND	0.00665	0.020	ug/L	1					
gamma-BHC (Lindane)	U	ND	0.00665	0.020	ug/L	1					
beta-BHC	J	0.0133	0.00665	0.020	ug/L	1	JXM	04/05/13	0853	1292713	10

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1611	1293571	11
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-02	Project:	CHAR00712C
Sample ID:	322828001	Client ID:	GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

2-Butanone	U	ND	2.00	5.00	ug/L	1
2-Hexanone	U	ND	2.20	5.00	ug/L	1
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1
Acetone	U	ND	2.50	5.00	ug/L	1
Benzene	U	ND	0.300	1.00	ug/L	1
Bromochloromethane	U	ND	0.300	1.00	ug/L	1
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1
Bromoform	U	ND	0.300	1.00	ug/L	1
Bromomethane	U	ND	0.300	1.00	ug/L	1
Carbon disulfide	U	ND	1.50	5.00	ug/L	1
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1
Chlorobenzene	U	ND	0.300	1.00	ug/L	1
Chloroethane	U	ND	0.300	1.00	ug/L	1
Chloroform	U	ND	0.300	1.00	ug/L	1
Chloromethane	U	ND	0.300	1.00	ug/L	1
Cyclohexane	U	ND	0.300	1.00	ug/L	1
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1
Ethylbenzene	U	ND	0.300	1.00	ug/L	1
Isopropylbenzene	U	ND	0.300	1.00	ug/L	1
Methyl acetate	U	ND	1.50	5.00	ug/L	1
Methylcyclohexane	U	ND	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	U	ND	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethane	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1
m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-02	Project:	CHAR00712C
Sample ID:	322828001	Client ID:	GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 3510C	SW846 3510C Prep Semivolatiles 8270D	DXF4	04/03/13	0850	1292494
SW846 3535A	SW3535A PCB SPE Extraction	RXC1	04/09/13	1000	1293625
SW846 3535A	SW3535A PCB SPE Extraction	SJW1	04/12/13	1030	1294337
SW846 3535A	SW3535A Pesticides SPE Extraction	RXC1	04/04/13	0920	1292712
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7470A		
2	SW846 3010A/6010C		
3	SW846 3010A/6010C		
4	SW846 3010A/6010C		
5	SW846 3510C/8270D		
6	SW846 3535A/8082A		
7	SW846 3535A/8082A		
8	SW846 3535A/8081B		
9	SW846 3535A/8081B		
10	SW846 3535A/8081B		
11	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	97.6 ug/L	100	97.6	(23%-130%)
2-Fluorophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	59.3 ug/L	100	59.3	(14%-77%)
Phenol-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	37.3 ug/L	100	37.3	(10%-78%)
2-Fluorobiphenyl	8270D Semivolatile Analysis by Separatory Funnel "As Received"	34.7 ug/L	50.0	69.4	(30%-104%)
Nitrobenzene-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	40.6 ug/L	50.0	81.2	(34%-125%)
p-Terphenyl-d14	8270D Semivolatile Analysis by Separatory Funnel	43.0 ug/L	50.0	86.0	(33%-136%)

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Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-02 Project: CHAR00712C
Sample ID: 322828001 Client ID: GEEL003

"As Received"					
Decachlorobiphenyl	SW846 3535A/8082A PCB Liquids "As Received"	0.170 ug/L	0.200	85.0	(41%-120%)
4cmx	SW846 3535A/8082A PCB Liquids "As Received"	0.111 ug/L	0.200	55.5	(42%-120%)
4cmx	SW846 3535A/8081B Liquid "As Received"	0.760 ug/L	1.00	76.0	(38%-104%)
Decachlorobiphenyl	SW846 3535A/8081B Liquid "As Received"	0.866 ug/L	1.00	86.6	(40%-131%)
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	50.8 ug/L	50.0	102	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	53.6 ug/L	50.0	107	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	51.5 ug/L	50.0	103	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-TB-040113	Project:	CHAR00712C
Sample ID:	322828002	Client ID:	GEEL003
Matrix:	Water		
Collect Date:	01-APR-13 12:25		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Volatile Organics											
Volatiles by SW846 8260B "As Received"											
1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1449	1293571	1
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1					
2-Butanone	U	ND	2.00	5.00	ug/L	1					
2-Hexanone	U	ND	2.20	5.00	ug/L	1					
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1					
Acetone	U	ND	2.50	5.00	ug/L	1					
Benzene	U	ND	0.300	1.00	ug/L	1					
Bromochloromethane	U	ND	0.300	1.00	ug/L	1					
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1					
Bromoform	U	ND	0.300	1.00	ug/L	1					
Bromomethane	U	ND	0.300	1.00	ug/L	1					
Carbon disulfide	U	ND	1.50	5.00	ug/L	1					
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1					
Chlorobenzene	U	ND	0.300	1.00	ug/L	1					
Chloroethane	U	ND	0.300	1.00	ug/L	1					
Chloroform	U	ND	0.300	1.00	ug/L	1					
Chloromethane	U	ND	0.300	1.00	ug/L	1					
Cyclohexane	U	ND	0.300	1.00	ug/L	1					
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1					
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1					
Ethylbenzene	U	ND	0.300	1.00	ug/L	1					
Isopropylbenzene	U	ND	0.300	1.00	ug/L	1					
Methyl acetate	U	ND	1.50	5.00	ug/L	1					

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-TB-040113	Project:	CHAR00712C
Sample ID:	322828002	Client ID:	GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

Methylcyclohexane	U	ND	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	U	ND	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethane	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1
m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments			
1	SW846 8260B				
Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	47.1 ug/L	50.0	94.2	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	49.2 ug/L	50.0	98.4	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	48.0 ug/L	50.0	96.0	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-0-1	Project:	CHAR00712C
Sample ID:	322828003	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 12:20		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	8.33%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		218		4.12	12.3	ug/kg	1	BCD1	04/04/13	1114	1292604
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5140000		7270	21400	ug/kg	1	JWJ	04/08/13	1505	1292640
Arsenic	J	2820		535	3210	ug/kg	1				
Barium		111000		107	535	ug/kg	1				
Beryllium	J	232		107	535	ug/kg	1				
Cadmium	J	336		107	535	ug/kg	1				
Calcium		3490000		8560	26700	ug/kg	1				
Chromium		16600		160	535	ug/kg	1				
Cobalt		1560		160	535	ug/kg	1				
Copper		35900		321	1070	ug/kg	1				
Iron		4590000		8560	26700	ug/kg	1				
Lead		195000		353	1070	ug/kg	1				
Magnesium		649000		9090	32100	ug/kg	1				
Manganese		57000		214	1070	ug/kg	1				
Nickel		3920		160	535	ug/kg	1				
Potassium		109000		6850	26700	ug/kg	1				
Selenium	J	858		535	3210	ug/kg	1				
Silver	J	452		107	535	ug/kg	1				
Sodium		33100		7490	26700	ug/kg	1				
Thallium	J	924		535	2140	ug/kg	1				
Vanadium		5890		107	535	ug/kg	1				
Zinc		156000		428	1070	ug/kg	1				
Antimony		1830		353	1070	ug/kg	1	JWJ	04/10/13	1254	1292640
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		109	362	ug/kg	1	JMB3	04/10/13	1613	1293524
1,2,4,5-Tetrachlorobenzene	U	ND		109	362	ug/kg	1				
2,3,4,6-Tetrachlorophenol	U	ND		109	362	ug/kg	1				
2,4,5-Trichlorophenol	U	ND		109	362	ug/kg	1				
2,4,6-Trichlorophenol	U	ND		109	362	ug/kg	1				
2,4-Dichlorophenol	U	ND		109	362	ug/kg	1				
2,4-Dimethylphenol	U	ND		109	362	ug/kg	1				
2,4-Dinitrophenol	U	ND		109	725	ug/kg	1				

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Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-0-1	Project:	CHAR00712C
Sample ID:	322828003	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	109	362	ug/kg	1
2,6-Dinitrotoluene	U	ND	109	362	ug/kg	1
2-Chloronaphthalene	U	ND	10.9	36.2	ug/kg	1
2-Chlorophenol	U	ND	109	362	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	109	362	ug/kg	1
2-Methylnaphthalene	U	ND	10.9	36.2	ug/kg	1
2-Nitrophenol	U	ND	109	362	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	109	362	ug/kg	1
4-Bromophenylphenylether	U	ND	109	362	ug/kg	1
4-Chloro-3-methylphenol	U	ND	145	362	ug/kg	1
4-Chloroaniline	U	ND	109	362	ug/kg	1
4-Chlorophenylphenylether	U	ND	109	362	ug/kg	1
4-Nitrophenol	U	ND	109	362	ug/kg	1
Acenaphthene	U	ND	10.9	36.2	ug/kg	1
Acenaphthylene	U	ND	10.9	36.2	ug/kg	1
Acetophenone	U	ND	109	362	ug/kg	1
Anthracene	U	ND	10.9	36.2	ug/kg	1
Atrazine	U	ND	145	362	ug/kg	1
Benzaldehyde	U	ND	109	362	ug/kg	1
Benzo(a)anthracene		122	10.9	36.2	ug/kg	1
Benzo(a)pyrene		156	10.9	36.2	ug/kg	1
Benzo(b)fluoranthene		282	10.9	36.2	ug/kg	1
Benzo(ghi)perylene		140	10.9	36.2	ug/kg	1
Benzo(k)fluoranthene		96.4	10.9	36.2	ug/kg	1
Butylbenzylphthalate	U	ND	109	362	ug/kg	1
Caprolactam	U	ND	109	362	ug/kg	1
Carbazole	J	18.8	10.9	36.2	ug/kg	1
Chrysene		184	10.9	36.2	ug/kg	1
Di-n-butylphthalate	U	ND	109	362	ug/kg	1
Di-n-octylphthalate	U	ND	109	362	ug/kg	1
Dibenzo(a,h)anthracene	J	35.9	10.9	36.2	ug/kg	1
Dibenzofuran	U	ND	109	362	ug/kg	1
Diethylphthalate	U	ND	109	362	ug/kg	1
Dimethylphthalate	U	ND	109	362	ug/kg	1
Diphenylamine	U	ND	109	362	ug/kg	1
Fluoranthene		269	10.9	36.2	ug/kg	1

Certificate of Analysis

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 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-0-1	Project:	CHAR00712C
Sample ID:	322828003	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	10.9	36.2	ug/kg	1
Hexachlorobenzene	U	ND	109	362	ug/kg	1
Hexachlorobutadiene	U	ND	109	362	ug/kg	1
Hexachlorocyclopentadiene	U	ND	109	362	ug/kg	1
Hexachloroethane	U	ND	109	362	ug/kg	1
Indeno(1,2,3-cd)pyrene		149	10.9	36.2	ug/kg	1
Isophorone	U	ND	109	362	ug/kg	1
N-Nitrosodipropylamine	U	ND	109	362	ug/kg	1
Naphthalene	U	ND	10.9	36.2	ug/kg	1
Nitrobenzene	U	ND	109	362	ug/kg	1
Pentachlorophenol	U	ND	109	362	ug/kg	1
Phenanthrene		83.3	10.9	36.2	ug/kg	1
Phenol	U	ND	109	362	ug/kg	1
Pyrene		353	10.9	36.2	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	109	362	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	109	362	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	109	362	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	109	362	ug/kg	1
m,p-Cresols	U	ND	109	362	ug/kg	1
m-Nitroaniline	U	ND	109	362	ug/kg	1
o-Cresol	U	ND	109	362	ug/kg	1
o-Nitroaniline	U	ND	120	362	ug/kg	1
p-Nitroaniline	U	ND	109	362	ug/kg	1

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	5.97	17.9	ug/kg	5	YS1	04/05/13	1332	1292526	5
Aroclor-1221	U	ND	5.97	17.9	ug/kg	5					
Aroclor-1232	U	ND	5.97	17.9	ug/kg	5					
Aroclor-1242	U	ND	5.97	17.9	ug/kg	5					
Aroclor-1248	U	ND	5.97	17.9	ug/kg	5					
Aroclor-1254	U	ND	5.97	17.9	ug/kg	5					
Aroclor-1260	U	ND	5.97	17.9	ug/kg	5					

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDE		18.4	3.63	14.5	ug/kg	10	JXM	04/07/13	1808	1292756	7
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Report Date: April 16, 2013

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Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-0-1	Project:	CHAR00712C
Sample ID:	322828003	Client ID:	GEEL003

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDT	P	34.0	3.63	14.5	ug/kg	10					
Aldrin		20.3	1.81	7.25	ug/kg	10					
Chlordane (tech.)	U	ND	18.1	90.7	ug/kg	10					
Endosulfan I	U	ND	1.81	7.25	ug/kg	10					
Endosulfan II	U	ND	3.63	14.5	ug/kg	10					
Endrin	U	ND	3.63	14.5	ug/kg	10					
Endrin aldehyde	U	ND	3.63	14.5	ug/kg	10					
Heptachlor	U	ND	1.81	7.25	ug/kg	10					
Heptachlor epoxide	J	6.76	1.81	7.25	ug/kg	10					
Methoxychlor	U	ND	18.1	72.5	ug/kg	10					
alpha-BHC	U	ND	1.81	7.25	ug/kg	10					
beta-BHC	U	ND	1.81	7.25	ug/kg	10					
delta-BHC	U	ND	1.81	7.25	ug/kg	10					
gamma-BHC (Lindane)	U	ND	1.81	7.25	ug/kg	10					
4,4'-DDD	P	50.6	3.63	14.5	ug/kg	10	JXM	04/07/13	1808	1292756	8
Dieldrin		358	3.63	14.5	ug/kg	10					
Endosulfan sulfate		19.8	3.63	14.5	ug/kg	10					
Endrin ketone	J	8.56	3.63	14.5	ug/kg	10					
Toxaphene		958	60.4	181	ug/kg	10					

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.260	0.866	ug/kg	1	RXY1	04/12/13	1143	1294273	9
1,1,2,2-Tetrachloroethane	U	ND	0.260	0.866	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.260	0.866	ug/kg	1					
1,1-Dichloroethane	U	ND	0.260	0.866	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.260	0.866	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.346	0.866	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.260	0.866	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.433	0.866	ug/kg	1					
1,2-Dibromoethane	U	ND	0.260	0.866	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.260	0.866	ug/kg	1					
1,2-Dichloroethane	U	ND	0.260	0.866	ug/kg	1					
1,2-Dichloropropane	U	ND	0.260	0.866	ug/kg	1					
1,3-Dichlorobenzene	U	ND	0.260	0.866	ug/kg	1					
1,4-Dichlorobenzene	U	ND	0.260	0.866	ug/kg	1					
1,4-Dioxane	U	ND	13.0	43.3	ug/kg	1					

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Client Sample ID:	PC-SS-02-0-1	Project:	CHAR00712C
Sample ID:	322828003	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

2-Butanone	U	ND	1.30	4.33	ug/kg	1
2-Hexanone	U	ND	1.30	4.33	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.30	4.33	ug/kg	1
Acetone	U	ND	1.30	4.33	ug/kg	1
Benzene	U	ND	0.260	0.866	ug/kg	1
Bromochloromethane	U	ND	0.260	0.866	ug/kg	1
Bromodichloromethane	U	ND	0.260	0.866	ug/kg	1
Bromoform	U	ND	0.260	0.866	ug/kg	1
Bromomethane	U	ND	0.260	0.866	ug/kg	1
Carbon disulfide	U	ND	1.30	4.33	ug/kg	1
Carbon tetrachloride	U	ND	0.260	0.866	ug/kg	1
Chlorobenzene	U	ND	0.260	0.866	ug/kg	1
Chloroethane	U	ND	0.260	0.866	ug/kg	1
Chloroform	U	ND	0.260	0.866	ug/kg	1
Chloromethane	U	ND	0.260	0.866	ug/kg	1
Cyclohexane	U	ND	0.260	0.866	ug/kg	1
Dibromochloromethane	U	ND	0.260	0.866	ug/kg	1
Dichlorodifluoromethane	U	ND	0.260	0.866	ug/kg	1
Ethylbenzene	U	ND	0.260	0.866	ug/kg	1
Isopropylbenzene	U	ND	0.260	0.866	ug/kg	1
Methyl acetate	U	ND	1.30	4.33	ug/kg	1
Methylcyclohexane	U	ND	0.346	0.866	ug/kg	1
Methylene chloride	U	ND	1.73	4.33	ug/kg	1
Styrene	U	ND	0.260	0.866	ug/kg	1
Tetrachloroethylene	U	ND	0.260	0.866	ug/kg	1
Toluene	U	ND	0.260	0.866	ug/kg	1
Trichloroethylene	U	ND	0.260	0.866	ug/kg	1
Trichlorofluoromethane	U	ND	0.260	0.866	ug/kg	1
Trichlorotrifluoroethane	U	ND	1.30	4.33	ug/kg	1
Vinyl chloride	U	ND	0.260	0.866	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.260	0.866	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.260	0.866	ug/kg	1
m,p-Xylenes	U	ND	0.260	1.73	ug/kg	1
o-Xylene	U	ND	0.260	0.866	ug/kg	1
tert-Butyl methyl ether	U	ND	0.260	0.866	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.260	0.866	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-0-1	Project:	CHAR00712C
Sample ID:	322828003	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

trans-1,3-Dichloropropylene	U	ND	0.260	0.866	ug/kg	1
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3541	Prep Method 3541 8081B Prep Soil	MXS3	04/04/13	1045	1292755
SW846 3541	Prep Method 3541 PCB Prep Soil	MXS3	04/03/13	1059	1292525
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1220	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 3541/8082A			
6	SW846 3541/8082A			
7	SW846 3541/8081B			
8	SW846 3541/8081B			
9	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	977 ug/kg	1810	53.9	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	917 ug/kg	1810	50.6	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1540 ug/kg	1810	85.0	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2290 ug/kg	3620	63.1	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2030 ug/kg	3620	56.1	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1920 ug/kg	3620	52.9	(30%-107%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	8.35 ug/kg	7.17	117	(37%-121%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-SS-02-0-1 Project: CHAR00712C
Sample ID: 322828003 Client ID: GEEL003

Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	20.6 ug/kg	7.17	287*	(34%-121%)
4cmx	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	32.0 ug/kg	36.3	88.1	(26%-110%)
Decachlorobiphenyl	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	35.3 ug/kg	36.3	97.3	(37%-136%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	40.3 ug/kg	50.0	93.0	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	53.9 ug/kg	50.0	125*	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	46.9 ug/kg	50.0	108	(80%-120%)

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Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-5-6	Project:	CHAR00712C
Sample ID:	322828004	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 12:35		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury	U	ND	4.60	13.7	ug/kg	1	BCD1	04/04/13	1116	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		11000000	8210	24100	ug/kg	1	JWJ	04/08/13	1524	1292640	2
Arsenic	J	1190	603	3620	ug/kg	1					
Barium		27600	121	603	ug/kg	1					
Beryllium	J	166	121	603	ug/kg	1					
Cadmium	U	ND	121	603	ug/kg	1					
Calcium		1240000	9660	30200	ug/kg	1					
Chromium		11100	181	603	ug/kg	1					
Cobalt		1200	181	603	ug/kg	1					
Copper	U	ND	362	1210	ug/kg	1					
Iron		6490000	9660	30200	ug/kg	1					
Lead		7180	398	1210	ug/kg	1					
Magnesium		611000	10300	36200	ug/kg	1					
Manganese		12000	241	1210	ug/kg	1					
Nickel		1920	181	603	ug/kg	1					
Potassium		273000	7720	30200	ug/kg	1					
Selenium	U	ND	603	3620	ug/kg	1					
Silver	U	ND	121	603	ug/kg	1					
Sodium		40700	8450	30200	ug/kg	1					
Thallium	U	ND	603	2410	ug/kg	1					
Vanadium		10600	121	603	ug/kg	1					
Zinc		8520	483	1210	ug/kg	1					
Antimony	J	928	398	1210	ug/kg	1	JWJ	04/10/13	1315	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	120	400	ug/kg	1	JMB3	04/09/13	2147	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	120	400	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	120	400	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	120	400	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	120	400	ug/kg	1					
2,4-Dichlorophenol	U	ND	120	400	ug/kg	1					
2,4-Dimethylphenol	U	ND	120	400	ug/kg	1					
2,4-Dinitrophenol	U	ND	120	800	ug/kg	1					

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-SS-02-5-6
Sample ID: 322828004

Project: CHAR00712C
Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	120	400	ug/kg	1
2,6-Dinitrotoluene	U	ND	120	400	ug/kg	1
2-Chloronaphthalene	U	ND	12.0	40.0	ug/kg	1
2-Chlorophenol	U	ND	120	400	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	120	400	ug/kg	1
2-Methylnaphthalene	U	ND	12.0	40.0	ug/kg	1
2-Nitrophenol	U	ND	120	400	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	120	400	ug/kg	1
4-Bromophenylphenylether	U	ND	120	400	ug/kg	1
4-Chloro-3-methylphenol	U	ND	160	400	ug/kg	1
4-Chloroaniline	U	ND	120	400	ug/kg	1
4-Chlorophenylphenylether	U	ND	120	400	ug/kg	1
4-Nitrophenol	U	ND	120	400	ug/kg	1
Acenaphthene	U	ND	12.0	40.0	ug/kg	1
Acenaphthylene	U	ND	12.0	40.0	ug/kg	1
Acetophenone	U	ND	120	400	ug/kg	1
Anthracene	U	ND	12.0	40.0	ug/kg	1
Atrazine	U	ND	160	400	ug/kg	1
Benzaldehyde	U	ND	120	400	ug/kg	1
Benzo(a)anthracene	U	ND	12.0	40.0	ug/kg	1
Benzo(a)pyrene	U	ND	12.0	40.0	ug/kg	1
Benzo(b)fluoranthene	U	ND	12.0	40.0	ug/kg	1
Benzo(ghi)perylene	U	ND	12.0	40.0	ug/kg	1
Benzo(k)fluoranthene	U	ND	12.0	40.0	ug/kg	1
Butylbenzylphthalate	U	ND	120	400	ug/kg	1
Caprolactam	U	ND	120	400	ug/kg	1
Carbazole	U	ND	12.0	40.0	ug/kg	1
Chrysene	U	ND	12.0	40.0	ug/kg	1
Di-n-butylphthalate	U	ND	120	400	ug/kg	1
Di-n-octylphthalate	U	ND	120	400	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	12.0	40.0	ug/kg	1
Dibenzofuran	U	ND	120	400	ug/kg	1
Diethylphthalate	U	ND	120	400	ug/kg	1
Dimethylphthalate	U	ND	120	400	ug/kg	1
Diphenylamine	U	ND	120	400	ug/kg	1
Fluoranthene	U	ND	12.0	40.0	ug/kg	1

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-5-6	Project:	CHAR00712C
Sample ID:	322828004	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	12.0	40.0	ug/kg	1
Hexachlorobenzene	U	ND	120	400	ug/kg	1
Hexachlorobutadiene	U	ND	120	400	ug/kg	1
Hexachlorocyclopentadiene	U	ND	120	400	ug/kg	1
Hexachloroethane	U	ND	120	400	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	12.0	40.0	ug/kg	1
Isophorone	U	ND	120	400	ug/kg	1
N-Nitrosodipropylamine	U	ND	120	400	ug/kg	1
Naphthalene	U	ND	12.0	40.0	ug/kg	1
Nitrobenzene	U	ND	120	400	ug/kg	1
Pentachlorophenol	U	ND	120	400	ug/kg	1
Phenanthrene	U	ND	12.0	40.0	ug/kg	1
Phenol	U	ND	120	400	ug/kg	1
Pyrene	U	ND	12.0	40.0	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	120	400	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	120	400	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	120	400	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	120	400	ug/kg	1
m,p-Cresols	U	ND	120	400	ug/kg	1
m-Nitroaniline	U	ND	120	400	ug/kg	1
o-Cresol	U	ND	120	400	ug/kg	1
o-Nitroaniline	U	ND	132	400	ug/kg	1
p-Nitroaniline	U	ND	120	400	ug/kg	1

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.33	4.01	ug/kg	1	YS1	04/05/13	1346	1292526	5
Aroclor-1221	U	ND	1.33	4.01	ug/kg	1					
Aroclor-1232	U	ND	1.33	4.01	ug/kg	1					
Aroclor-1242	U	ND	1.33	4.01	ug/kg	1					
Aroclor-1248	U	ND	1.33	4.01	ug/kg	1					
Aroclor-1254	U	ND	1.33	4.01	ug/kg	1					
Aroclor-1260	U	ND	1.33	4.01	ug/kg	1					

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDD	U	ND	0.399	1.59	ug/kg	1	JXM	04/05/13	1032	1292756	7
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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-5-6	Project:	CHAR00712C
Sample ID:	322828004	Client ID:	GEEL003

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDE	U	ND	0.399	1.59	ug/kg	1
4,4'-DDT	U	ND	0.399	1.59	ug/kg	1
Aldrin	U	ND	0.199	0.797	ug/kg	1
Chlordane (tech.)	U	ND	1.99	9.97	ug/kg	1
Dieldrin	J	0.518	0.399	1.59	ug/kg	1
Endosulfan I	U	ND	0.199	0.797	ug/kg	1
Endosulfan II	U	ND	0.399	1.59	ug/kg	1
Endosulfan sulfate	U	ND	0.399	1.59	ug/kg	1
Endrin	U	ND	0.399	1.59	ug/kg	1
Endrin aldehyde	U	ND	0.399	1.59	ug/kg	1
Endrin ketone	U	ND	0.399	1.59	ug/kg	1
Heptachlor	U	ND	0.199	0.797	ug/kg	1
Heptachlor epoxide	U	ND	0.199	0.797	ug/kg	1
Methoxychlor	U	ND	1.99	7.97	ug/kg	1
Toxaphene	U	ND	6.64	19.9	ug/kg	1
alpha-BHC	U	ND	0.199	0.797	ug/kg	1
beta-BHC	U	ND	0.199	0.797	ug/kg	1
delta-BHC	U	ND	0.199	0.797	ug/kg	1
gamma-BHC (Lindane)	U	ND	0.199	0.797	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.241	0.805	ug/kg	1	RXY1	04/11/13	1043	1294273	9
1,1,2,2-Tetrachloroethane	U	ND	0.241	0.805	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.241	0.805	ug/kg	1					
1,1-Dichloroethane	U	ND	0.241	0.805	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.241	0.805	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.322	0.805	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.241	0.805	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.402	0.805	ug/kg	1					
1,2-Dibromoethane	U	ND	0.241	0.805	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.241	0.805	ug/kg	1					
1,2-Dichloroethane	U	ND	0.241	0.805	ug/kg	1					
1,2-Dichloropropane	U	ND	0.241	0.805	ug/kg	1					
1,3-Dichlorobenzene	U	ND	0.241	0.805	ug/kg	1					
1,4-Dichlorobenzene	U	ND	0.241	0.805	ug/kg	1					
1,4-Dioxane	U	ND	12.1	40.2	ug/kg	1					

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 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-5-6	Project:	CHAR00712C
Sample ID:	322828004	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

2-Butanone	U	ND	1.21	4.02	ug/kg	1
2-Hexanone	U	ND	1.21	4.02	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.21	4.02	ug/kg	1
Acetone	U	ND	1.21	4.02	ug/kg	1
Benzene	U	ND	0.241	0.805	ug/kg	1
Bromochloromethane	U	ND	0.241	0.805	ug/kg	1
Bromodichloromethane	U	ND	0.241	0.805	ug/kg	1
Bromoform	U	ND	0.241	0.805	ug/kg	1
Bromomethane	U	ND	0.241	0.805	ug/kg	1
Carbon disulfide	U	ND	1.21	4.02	ug/kg	1
Carbon tetrachloride	U	ND	0.241	0.805	ug/kg	1
Chlorobenzene	U	ND	0.241	0.805	ug/kg	1
Chloroethane	U	ND	0.241	0.805	ug/kg	1
Chloroform	U	ND	0.241	0.805	ug/kg	1
Chloromethane	U	ND	0.241	0.805	ug/kg	1
Cyclohexane	U	ND	0.241	0.805	ug/kg	1
Dibromochloromethane	U	ND	0.241	0.805	ug/kg	1
Dichlorodifluoromethane	U	ND	0.241	0.805	ug/kg	1
Ethylbenzene	U	ND	0.241	0.805	ug/kg	1
Isopropylbenzene	U	ND	0.241	0.805	ug/kg	1
Methyl acetate	U	ND	1.21	4.02	ug/kg	1
Methylcyclohexane	U	ND	0.322	0.805	ug/kg	1
Methylene chloride	U	ND	1.61	4.02	ug/kg	1
Styrene	U	ND	0.241	0.805	ug/kg	1
Tetrachloroethylene	U	ND	0.241	0.805	ug/kg	1
Toluene	U	ND	0.241	0.805	ug/kg	1
Trichloroethylene	U	ND	0.241	0.805	ug/kg	1
Trichlorofluoromethane	U	ND	0.241	0.805	ug/kg	1
Trichlorotrifluoroethane	U	ND	1.21	4.02	ug/kg	1
Vinyl chloride	U	ND	0.241	0.805	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.241	0.805	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.241	0.805	ug/kg	1
m,p-Xylenes	U	ND	0.241	1.61	ug/kg	1
o-Xylene	U	ND	0.241	0.805	ug/kg	1
tert-Butyl methyl ether	U	ND	0.241	0.805	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.241	0.805	ug/kg	1

Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-02-5-6	Project:	CHAR00712C
Sample ID:	322828004	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

trans-1,3-Dichloropropylene	U	ND	0.241	0.805	ug/kg	1
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3541	Prep Method 3541 8081B Prep Soil	MXS3	04/04/13	1045	1292755
SW846 3541	Prep Method 3541 PCB Prep Soil	MXS3	04/03/13	1059	1292525
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1235	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 3541/8082A			
6	SW846 3541/8082A			
7	SW846 3541/8081B			
8	SW846 3541/8081B			
9	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	826 ug/kg	2000	41.3	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	811 ug/kg	2000	40.6	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1320 ug/kg	2000	66.0	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1900 ug/kg	4000	47.6	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1870 ug/kg	4000	46.7	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1770 ug/kg	4000	44.3	(30%-107%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.94 ug/kg	8.02	74.1	(37%-121%)

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Contact: Charleston, South Carolina 29417
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Project: Phase II ESA, Post and Courier

Client Sample ID: PC-SS-02-5-6 Project: CHAR00712C
Sample ID: 322828004 Client ID: GEEL003

Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	7.06 ug/kg	8.02	88.1	(34%-121%)
4cmx	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	33.6 ug/kg	39.9	84.4	(26%-110%)
Decachlorobiphenyl	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	39.9 ug/kg	39.9	100	(37%-136%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	37.2 ug/kg	50.0	92.5	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	40.9 ug/kg	50.0	102	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	38.0 ug/kg	50.0	94.4	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-02	Project:	CHAR00712C
Sample ID:	322828005	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 12:10		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0912	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum	U	ND	68.0	200	ug/L	1	LS	04/04/13	1735	1292561	2
Barium		11.2	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	J	1.14	1.00	5.00	ug/L	1					
Calcium		64700	50.0	200	ug/L	1					
Chromium	U	ND	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron		837	30.0	100	ug/L	1					
Magnesium		11400	110	300	ug/L	1					
Manganese		41.1	2.00	10.0	ug/L	1					
Nickel	J	2.07	1.50	5.00	ug/L	1					
Potassium		17100	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		9830	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium	J	1.97	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1220	1292561	3
Arsenic	J	5.93	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1516	1292561	4
Selenium	J	10.2	6.00	30.0	ug/L	1	LS	04/15/13	1429	1292561	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

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Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-02 Project: CHAR00712C
Sample ID: 322828005 Client ID: GEEL003

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3010A/6010C	
3	SW846 3010A/6010C	
4	SW846 3010A/6010C	
5	SW846 3010A/6010C	

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-01	Project:	CHAR00712C
Sample ID:	322828006	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 13:20		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0914	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum		4020	68.0	200	ug/L	1	LS	04/04/13	1739	1292561	2
Barium		50.9	1.00	5.00	ug/L	1					
Beryllium	J	2.05	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium		73900	50.0	200	ug/L	1					
Chromium		23.0	1.00	5.00	ug/L	1					
Cobalt	J	4.91	1.00	5.00	ug/L	1					
Copper	J	3.90	3.00	10.0	ug/L	1					
Iron		24400	30.0	100	ug/L	1					
Magnesium		10400	110	300	ug/L	1					
Manganese		318	2.00	10.0	ug/L	1					
Nickel	J	4.12	1.50	5.00	ug/L	1					
Potassium		10100	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		18900	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium		15.3	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	J	5.03	3.50	10.0	ug/L	1	LS	04/05/13	1223	1292561	3
Arsenic		37.3	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1519	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1442	1292561	5
Semi-Volatile-GC/MS											
8270D Semivolatile Analysis by Separatory Funnel "As Received"											
1,1'-Biphenyl	U	ND	3.00	10.0	ug/L	1	AGS1	04/03/13	2224	1292495	6
1,2,4,5-Tetrachlorobenzene	U	ND	3.00	10.0	ug/L	1					
2,3,4,6-Tetrachlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dimethylphenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dinitrophenol	U	ND	5.00	20.0	ug/L	1					

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Certificate of Analysis

Report Date: April 16, 2013

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Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-MW-01 Project: CHAR00712C
Sample ID: 322828006 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

2,4-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2,6-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2-Chloronaphthalene	U	ND	0.300	1.00	ug/L	1
2-Chlorophenol	U	ND	3.00	10.0	ug/L	1
2-Methyl-4,6-dinitrophenol	U	ND	3.00	10.0	ug/L	1
2-Methylnaphthalene	U	ND	0.300	1.00	ug/L	1
2-Nitrophenol	U	ND	3.00	10.0	ug/L	1
3,3'-Dichlorobenzidine	U	ND	3.00	10.0	ug/L	1
4-Bromophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Chloro-3-methylphenol	U	ND	3.00	10.0	ug/L	1
4-Chloroaniline	U	ND	3.30	10.0	ug/L	1
4-Chlorophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Nitrophenol	U	ND	3.00	10.0	ug/L	1
Acenaphthene	U	ND	0.300	1.00	ug/L	1
Acenaphthylene	U	ND	0.300	1.00	ug/L	1
Acetophenone	U	ND	3.00	10.0	ug/L	1
Anthracene	U	ND	0.300	1.00	ug/L	1
Atrazine	U	ND	3.00	10.0	ug/L	1
Benzaldehyde	U	ND	5.00	10.0	ug/L	1
Benzo(a)anthracene	U	ND	0.300	1.00	ug/L	1
Benzo(a)pyrene	U	ND	0.440	1.00	ug/L	1
Benzo(b)fluoranthene	U	ND	0.300	1.00	ug/L	1
Benzo(ghi)perylene	U	ND	0.300	1.00	ug/L	1
Benzo(k)fluoranthene	U	ND	0.300	1.00	ug/L	1
Butylbenzylphthalate	U	ND	3.00	10.0	ug/L	1
Caprolactam	U	ND	3.00	10.0	ug/L	1
Carbazole	U	ND	0.300	1.00	ug/L	1
Chrysene	U	ND	0.300	1.00	ug/L	1
Di-n-butylphthalate	U	ND	3.00	10.0	ug/L	1
Di-n-octylphthalate	U	ND	3.00	10.0	ug/L	1
Dibenzo(a,h)anthracene	U	ND	0.300	1.00	ug/L	1
Dibenzo-furan	U	ND	3.00	10.0	ug/L	1
Diethylphthalate	U	ND	3.00	10.0	ug/L	1
Dimethylphthalate	U	ND	3.00	10.0	ug/L	1
Diphenylamine	U	ND	3.00	10.0	ug/L	1
Fluoranthene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-01	Project:	CHAR00712C
Sample ID:	322828006	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

Fluorene	U	ND	0.300	1.00	ug/L	1
Hexachlorobenzene	U	ND	3.00	10.0	ug/L	1
Hexachlorobutadiene	U	ND	3.00	10.0	ug/L	1
Hexachlorocyclopentadiene	U	ND	3.00	10.0	ug/L	1
Hexachloroethane	U	ND	3.00	10.0	ug/L	1
Indeno(1,2,3-cd)pyrene	U	ND	0.300	1.00	ug/L	1
Isophorone	U	ND	3.00	10.0	ug/L	1
N-Nitrosodipropylamine	U	ND	3.00	10.0	ug/L	1
Naphthalene	U	ND	0.300	1.00	ug/L	1
Nitrobenzene	U	ND	3.00	10.0	ug/L	1
Pentachlorophenol	U	ND	3.00	10.0	ug/L	1
Phenanthrene	U	ND	0.300	1.00	ug/L	1
Phenol	U	ND	3.00	10.0	ug/L	1
Pyrene	U	ND	0.300	1.00	ug/L	1
bis(2-Chloroethoxy)methane	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroethyl) ether	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroisopropyl)ether	U	ND	3.00	10.0	ug/L	1
bis(2-Ethylhexyl)phthalate	U	ND	3.00	10.0	ug/L	1
m,p-Cresols	U	ND	3.00	10.0	ug/L	1
m-Nitroaniline	U	ND	3.00	10.0	ug/L	1
o-Cresol	U	ND	3.00	10.0	ug/L	1
o-Nitroaniline	U	ND	3.00	10.0	ug/L	1
p-Nitroaniline	U	ND	3.00	10.0	ug/L	1

Semi-Volatiles-PCB

SW846 3535A/8082A PCB Liquids "As Received"

Aroclor-1016	U	ND	0.0333	0.100	ug/L	1	YS1	04/15/13	1139	1294339	7
Aroclor-1221	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1232	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1242	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1248	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1260	U	ND	0.0333	0.100	ug/L	1					
Aroclor-1254	J	0.0639	0.0333	0.100	ug/L	1	YS1	04/15/13	1139	1294339	8

Semi-Volatiles-Pesticide

SW846 3535A/8081B Liquid "As Received"

4,4'-DDD	J	0.0134	0.010	0.040	ug/L	1	JXM	04/05/13	0907	1292713	9
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Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-01	Project:	CHAR00712C
Sample ID:	322828006	Client ID:	GEEL003

Semi-Volatiles-Pesticide

SW846 3535A/8081B Liquid "As Received"

4,4'-DDE	U	ND	0.010	0.040	ug/L	1
4,4'-DDT	U	ND	0.010	0.040	ug/L	1
Aldrin	U	ND	0.00665	0.020	ug/L	1
Chlordane (tech.)	U	ND	0.0765	0.250	ug/L	1
Dieldrin	J	0.0122	0.010	0.040	ug/L	1
Endosulfan I	U	ND	0.00665	0.020	ug/L	1
Endosulfan II	U	ND	0.010	0.040	ug/L	1
Endosulfan sulfate	U	ND	0.010	0.040	ug/L	1
Endrin	U	ND	0.010	0.040	ug/L	1
Endrin aldehyde	U	ND	0.00665	0.040	ug/L	1
Endrin ketone	U	ND	0.010	0.040	ug/L	1
Heptachlor	U	ND	0.00665	0.020	ug/L	1
Heptachlor epoxide	U	ND	0.00665	0.020	ug/L	1
Methoxychlor	U	ND	0.050	0.200	ug/L	1
Toxaphene	U	ND	0.150	0.500	ug/L	1
alpha-BHC	U	ND	0.00665	0.020	ug/L	1
beta-BHC	J	0.0095	0.00665	0.020	ug/L	1
delta-BHC	U	ND	0.00665	0.020	ug/L	1
gamma-BHC (Lindane)	U	ND	0.00665	0.020	ug/L	1

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1639	1293571	10
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1					
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1					

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Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-01 Project: CHAR00712C
Sample ID: 322828006 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

2-Butanone	U	ND	2.00	5.00	ug/L	1
2-Hexanone	U	ND	2.20	5.00	ug/L	1
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1
Acetone	U	ND	2.50	5.00	ug/L	1
Benzene	U	ND	0.300	1.00	ug/L	1
Bromochloromethane	U	ND	0.300	1.00	ug/L	1
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1
Bromoform	U	ND	0.300	1.00	ug/L	1
Bromomethane	U	ND	0.300	1.00	ug/L	1
Carbon disulfide	U	ND	1.50	5.00	ug/L	1
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1
Chlorobenzene	U	ND	0.300	1.00	ug/L	1
Chloroethane	U	ND	0.300	1.00	ug/L	1
Chloroform	U	ND	0.300	1.00	ug/L	1
Chloromethane	U	ND	0.300	1.00	ug/L	1
Cyclohexane	U	ND	0.300	1.00	ug/L	1
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1
Ethylbenzene	U	ND	0.300	1.00	ug/L	1
Isopropylbenzene	U	ND	0.300	1.00	ug/L	1
Methyl acetate	U	ND	1.50	5.00	ug/L	1
Methylcyclohexane	U	ND	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	J	0.320	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethane	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1
m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-01 Project: CHAR00712C
Sample ID: 322828006 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 3510C	SW846 3510C Prep Semivolatiles 8270D	DXF4	04/03/13	0850	1292494
SW846 3535A	SW3535A PCB SPE Extraction	RXC1	04/09/13	1000	1293625
SW846 3535A	SW3535A PCB SPE Extraction	SJW1	04/12/13	1030	1294337
SW846 3535A	SW3535A Pesticides SPE Extraction	RXC1	04/04/13	0920	1292712
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7470A		
2	SW846 3010A/6010C		
3	SW846 3010A/6010C		
4	SW846 3010A/6010C		
5	SW846 3010A/6010C		
6	SW846 3510C/8270D		
7	SW846 3535A/8082A		
8	SW846 3535A/8082A		
9	SW846 3535A/8081B		
10	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	96.4 ug/L	100	96.4	(23%-130%)
2-Fluorophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	51.8 ug/L	100	51.8	(14%-77%)
Phenol-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	33.0 ug/L	100	33.0	(10%-78%)
2-Fluorobiphenyl	8270D Semivolatile Analysis by Separatory Funnel "As Received"	31.4 ug/L	50.0	62.9	(30%-104%)
Nitrobenzene-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	36.2 ug/L	50.0	72.3	(34%-125%)
p-Terphenyl-d14	8270D Semivolatile Analysis by Separatory Funnel "As Received"	41.0 ug/L	50.0	82.0	(33%-136%)

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Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-01 Project: CHAR00712C
Sample ID: 322828006 Client ID: GEEL003

Decachlorobiphenyl	SW846 3535A/8082A PCB Liquids "As Received"	0.156 ug/L	0.200	77.9	(41%-120%)
4cmx	SW846 3535A/8082A PCB Liquids "As Received"	0.123 ug/L	0.200	61.5	(42%-120%)
4cmx	SW846 3535A/8081B Liquid "As Received"	0.673 ug/L	1.00	67.3	(38%-104%)
Decachlorobiphenyl	SW846 3535A/8081B Liquid "As Received"	0.780 ug/L	1.00	78.0	(40%-131%)
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	40.7 ug/L	50.0	81.4	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	43.1 ug/L	50.0	86.2	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	41.5 ug/L	50.0	83.0	(80%-120%)

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Phase II ESA, Post and Courier

Client Sample ID:	PC-FB-040113	Project:	CHAR00712C
Sample ID:	322828007	Client ID:	GEEL003
Matrix:	Water		
Collect Date:	01-APR-13 13:30		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0916	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum	U	ND	68.0	200	ug/L	1	LS	04/04/13	1741	1292561	2
Barium	U	ND	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium	U	ND	50.0	200	ug/L	1					
Chromium	U	ND	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron	U	ND	30.0	100	ug/L	1					
Magnesium	U	ND	110	300	ug/L	1					
Manganese	U	ND	2.00	10.0	ug/L	1					
Nickel	U	ND	1.50	5.00	ug/L	1					
Potassium	U	ND	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium	U	ND	100	300	ug/L	1					
Thallium	J	6.98	5.00	20.0	ug/L	1					
Vanadium	U	ND	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1226	1292561	3
Arsenic	U	ND	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1521	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1444	1292561	5
Semi-Volatile-GC/MS											
8270D Semivolatile Analysis by Separatory Funnel "As Received"											
1,1'-Biphenyl	U	ND	3.00	10.0	ug/L	1	AGS1	04/03/13	2253	1292495	6
1,2,4,5-Tetrachlorobenzene	U	ND	3.00	10.0	ug/L	1					
2,3,4,6-Tetrachlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dimethylphenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dinitrophenol	U	ND	5.00	20.0	ug/L	1					

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Phase II ESA, Post and Courier

Client Sample ID: PC-FB-040113 Project: CHAR00712C
Sample ID: 322828007 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

2,4-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2,6-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2-Chloronaphthalene	U	ND	0.300	1.00	ug/L	1
2-Chlorophenol	U	ND	3.00	10.0	ug/L	1
2-Methyl-4,6-dinitrophenol	U	ND	3.00	10.0	ug/L	1
2-Methylnaphthalene	U	ND	0.300	1.00	ug/L	1
2-Nitrophenol	U	ND	3.00	10.0	ug/L	1
3,3'-Dichlorobenzidine	U	ND	3.00	10.0	ug/L	1
4-Bromophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Chloro-3-methylphenol	U	ND	3.00	10.0	ug/L	1
4-Chloroaniline	U	ND	3.30	10.0	ug/L	1
4-Chlorophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Nitrophenol	U	ND	3.00	10.0	ug/L	1
Acenaphthene	U	ND	0.300	1.00	ug/L	1
Acenaphthylene	U	ND	0.300	1.00	ug/L	1
Acetophenone	U	ND	3.00	10.0	ug/L	1
Anthracene	U	ND	0.300	1.00	ug/L	1
Atrazine	U	ND	3.00	10.0	ug/L	1
Benzaldehyde	U	ND	5.00	10.0	ug/L	1
Benzo(a)anthracene	U	ND	0.300	1.00	ug/L	1
Benzo(a)pyrene	U	ND	0.440	1.00	ug/L	1
Benzo(b)fluoranthene	U	ND	0.300	1.00	ug/L	1
Benzo(ghi)perylene	U	ND	0.300	1.00	ug/L	1
Benzo(k)fluoranthene	U	ND	0.300	1.00	ug/L	1
Butylbenzylphthalate	U	ND	3.00	10.0	ug/L	1
Caprolactam	U	ND	3.00	10.0	ug/L	1
Carbazole	U	ND	0.300	1.00	ug/L	1
Chrysene	U	ND	0.300	1.00	ug/L	1
Di-n-butylphthalate	U	ND	3.00	10.0	ug/L	1
Di-n-octylphthalate	U	ND	3.00	10.0	ug/L	1
Dibenzo(a,h)anthracene	U	ND	0.300	1.00	ug/L	1
Dibenzo-furan	U	ND	3.00	10.0	ug/L	1
Diethylphthalate	U	ND	3.00	10.0	ug/L	1
Dimethylphthalate	U	ND	3.00	10.0	ug/L	1
Diphenylamine	U	ND	3.00	10.0	ug/L	1
Fluoranthene	U	ND	0.300	1.00	ug/L	1

Certificate of Analysis

Report Date: April 16, 2013

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-FB-040113	Project:	CHAR00712C
Sample ID:	322828007	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

Fluorene	U	ND	0.300	1.00	ug/L	1
Hexachlorobenzene	U	ND	3.00	10.0	ug/L	1
Hexachlorobutadiene	U	ND	3.00	10.0	ug/L	1
Hexachlorocyclopentadiene	U	ND	3.00	10.0	ug/L	1
Hexachloroethane	U	ND	3.00	10.0	ug/L	1
Indeno(1,2,3-cd)pyrene	U	ND	0.300	1.00	ug/L	1
Isophorone	U	ND	3.00	10.0	ug/L	1
N-Nitrosodipropylamine	U	ND	3.00	10.0	ug/L	1
Naphthalene	U	ND	0.300	1.00	ug/L	1
Nitrobenzene	U	ND	3.00	10.0	ug/L	1
Pentachlorophenol	U	ND	3.00	10.0	ug/L	1
Phenanthrene	U	ND	0.300	1.00	ug/L	1
Phenol	U	ND	3.00	10.0	ug/L	1
Pyrene	U	ND	0.300	1.00	ug/L	1
bis(2-Chloroethoxy)methane	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroethyl) ether	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroisopropyl)ether	U	ND	3.00	10.0	ug/L	1
bis(2-Ethylhexyl)phthalate	U	ND	3.00	10.0	ug/L	1
m,p-Cresols	U	ND	3.00	10.0	ug/L	1
m-Nitroaniline	U	ND	3.00	10.0	ug/L	1
o-Cresol	U	ND	3.00	10.0	ug/L	1
o-Nitroaniline	U	ND	3.00	10.0	ug/L	1
p-Nitroaniline	U	ND	3.00	10.0	ug/L	1

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1516	1293571	7
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.300	1.00	ug/L	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-FB-040113 Project: CHAR00712C
Sample ID: 322828007 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1
2-Butanone	U	ND	2.00	5.00	ug/L	1
2-Hexanone	U	ND	2.20	5.00	ug/L	1
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1
Acetone	U	ND	2.50	5.00	ug/L	1
Benzene	U	ND	0.300	1.00	ug/L	1
Bromochloromethane	U	ND	0.300	1.00	ug/L	1
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1
Bromoform	U	ND	0.300	1.00	ug/L	1
Bromomethane	U	ND	0.300	1.00	ug/L	1
Carbon disulfide	U	ND	1.50	5.00	ug/L	1
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1
Chlorobenzene	U	ND	0.300	1.00	ug/L	1
Chloroethane	U	ND	0.300	1.00	ug/L	1
Chloroform	U	ND	0.300	1.00	ug/L	1
Chloromethane	U	ND	0.300	1.00	ug/L	1
Cyclohexane	U	ND	0.300	1.00	ug/L	1
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1
Ethylbenzene	U	ND	0.300	1.00	ug/L	1
Isopropylbenzene	U	ND	0.300	1.00	ug/L	1
Methyl acetate	U	ND	1.50	5.00	ug/L	1
Methylcyclohexane	U	ND	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	U	ND	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethylene	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-FB-040113 Project: CHAR00712C
Sample ID: 322828007 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 3510C	SW846 3510C Prep Semivolatiles 8270D	DXF4	04/03/13	0850	1292494
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7470A		
2	SW846 3010A/6010C		
3	SW846 3010A/6010C		
4	SW846 3010A/6010C		
5	SW846 3010A/6010C		
6	SW846 3510C/8270D		
7	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	91.6 ug/L	100	91.6	(23%-130%)
2-Fluorophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	59.5 ug/L	100	59.5	(14%-77%)
Phenol-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	38.2 ug/L	100	38.2	(10%-78%)
2-Fluorobiphenyl	8270D Semivolatile Analysis by Separatory Funnel "As Received"	33.1 ug/L	50.0	66.2	(30%-104%)
Nitrobenzene-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	38.5 ug/L	50.0	76.9	(34%-125%)
p-Terphenyl-d14	8270D Semivolatile Analysis by Separatory Funnel "As Received"	43.8 ug/L	50.0	87.7	(33%-136%)
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	49.6 ug/L	50.0	99.2	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	53.0 ug/L	50.0	106	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	50.7 ug/L	50.0	101	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-0-1	Project:	CHAR00712C
Sample ID:	322828008	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 13:15		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	7.81%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		341		4.06	12.1	ug/kg	1	BCD1	04/04/13	1118	1292604
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		6660000		7320	21500	ug/kg	1	JWJ	04/08/13	1527	1292640
Arsenic	J	1680		538	3230	ug/kg	1				
Barium		33000		108	538	ug/kg	1				
Beryllium	J	175		108	538	ug/kg	1				
Cadmium	U	ND		108	538	ug/kg	1				
Calcium		10800000		8610	26900	ug/kg	1				
Chromium		7490		161	538	ug/kg	1				
Cobalt		1860		161	538	ug/kg	1				
Copper		124000		323	1080	ug/kg	1				
Iron		7750000		8610	26900	ug/kg	1				
Lead		89600		355	1080	ug/kg	1				
Magnesium		501000		9150	32300	ug/kg	1				
Manganese		122000		215	1080	ug/kg	1				
Nickel		3170		161	538	ug/kg	1				
Potassium		277000		6890	26900	ug/kg	1				
Selenium	J	1580		538	3230	ug/kg	1				
Silver	J	228		108	538	ug/kg	1				
Sodium		263000		7530	26900	ug/kg	1				
Thallium	J	547		538	2150	ug/kg	1				
Vanadium		11300		108	538	ug/kg	1				
Zinc		47900		430	1080	ug/kg	1				
Antimony		3440		355	1080	ug/kg	1	JWJ	04/10/13	1318	1292640
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		433	1440	ug/kg	4	JMB3	04/11/13	1411	1293524
1,2,4,5-Tetrachlorobenzene	U	ND		433	1440	ug/kg	4				
2,3,4,6-Tetrachlorophenol	U	ND		433	1440	ug/kg	4				
2,4,5-Trichlorophenol	U	ND		433	1440	ug/kg	4				
2,4,6-Trichlorophenol	U	ND		433	1440	ug/kg	4				
2,4-Dichlorophenol	U	ND		433	1440	ug/kg	4				
2,4-Dimethylphenol	U	ND		433	1440	ug/kg	4				
2,4-Dinitrophenol	U	ND		433	2880	ug/kg	4				

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Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-0-1	Project:	CHAR00712C
Sample ID:	322828008	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	433	1440	ug/kg	4
2,6-Dinitrotoluene	U	ND	433	1440	ug/kg	4
2-Chloronaphthalene	U	ND	43.3	144	ug/kg	4
2-Chlorophenol	U	ND	433	1440	ug/kg	4
2-Methyl-4,6-dinitrophenol	U	ND	433	1440	ug/kg	4
2-Methylnaphthalene	U	ND	43.3	144	ug/kg	4
2-Nitrophenol	U	ND	433	1440	ug/kg	4
3,3'-Dichlorobenzidine	U	ND	433	1440	ug/kg	4
4-Bromophenylphenylether	U	ND	433	1440	ug/kg	4
4-Chloro-3-methylphenol	U	ND	577	1440	ug/kg	4
4-Chloroaniline	U	ND	433	1440	ug/kg	4
4-Chlorophenylphenylether	U	ND	433	1440	ug/kg	4
4-Nitrophenol	U	ND	433	1440	ug/kg	4
Acenaphthene	U	ND	43.3	144	ug/kg	4
Acenaphthylene	U	ND	43.3	144	ug/kg	4
Acetophenone	U	ND	433	1440	ug/kg	4
Anthracene	U	ND	43.3	144	ug/kg	4
Atrazine	U	ND	577	1440	ug/kg	4
Benzaldehyde	U	ND	433	1440	ug/kg	4
Benzo(a)anthracene	U	ND	43.3	144	ug/kg	4
Benzo(a)pyrene	U	ND	43.3	144	ug/kg	4
Benzo(b)fluoranthene	U	ND	43.3	144	ug/kg	4
Benzo(ghi)perylene	J	57.7	43.3	144	ug/kg	4
Benzo(k)fluoranthene	U	ND	43.3	144	ug/kg	4
Butylbenzylphthalate	U	ND	433	1440	ug/kg	4
Caprolactam	U	ND	433	1440	ug/kg	4
Carbazole	U	ND	43.3	144	ug/kg	4
Chrysene	U	ND	43.3	144	ug/kg	4
Di-n-butylphthalate	U	ND	433	1440	ug/kg	4
Di-n-octylphthalate	U	ND	433	1440	ug/kg	4
Dibenzo(a,h)anthracene	U	ND	43.3	144	ug/kg	4
Dibenzo-furan	U	ND	433	1440	ug/kg	4
Diethylphthalate	U	ND	433	1440	ug/kg	4
Dimethylphthalate	U	ND	433	1440	ug/kg	4
Diphenylamine	U	ND	433	1440	ug/kg	4
Fluoranthene	U	ND	43.3	144	ug/kg	4

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Client Sample ID:	PC-SS-01-0-1	Project:	CHAR00712C
Sample ID:	322828008	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	43.3	144	ug/kg	4
Hexachlorobenzene	U	ND	433	1440	ug/kg	4
Hexachlorobutadiene	U	ND	433	1440	ug/kg	4
Hexachlorocyclopentadiene	U	ND	433	1440	ug/kg	4
Hexachloroethane	U	ND	433	1440	ug/kg	4
Indeno(1,2,3-cd)pyrene	U	ND	43.3	144	ug/kg	4
Isophorone	U	ND	433	1440	ug/kg	4
N-Nitrosodipropylamine	U	ND	433	1440	ug/kg	4
Naphthalene	U	ND	43.3	144	ug/kg	4
Nitrobenzene	U	ND	433	1440	ug/kg	4
Pentachlorophenol	U	ND	433	1440	ug/kg	4
Phenanthren	U	ND	43.3	144	ug/kg	4
Phenol	U	ND	433	1440	ug/kg	4
Pyrene	U	ND	43.3	144	ug/kg	4
bis(2-Chloroethoxy)methane	U	ND	433	1440	ug/kg	4
bis(2-Chloroethyl) ether	U	ND	433	1440	ug/kg	4
bis(2-Chloroisopropyl)ether	U	ND	433	1440	ug/kg	4
bis(2-Ethylhexyl)phthalate	U	ND	433	1440	ug/kg	4
m,p-Cresols	U	ND	433	1440	ug/kg	4
m-Nitroaniline	U	ND	433	1440	ug/kg	4
o-Cresol	U	ND	433	1440	ug/kg	4
o-Nitroaniline	U	ND	476	1440	ug/kg	4
p-Nitroaniline	U	ND	433	1440	ug/kg	4

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	6.00	18.0	ug/kg	5	YS1	04/05/13	1401	1292526	5
Aroclor-1221	U	ND	6.00	18.0	ug/kg	5					
Aroclor-1232	U	ND	6.00	18.0	ug/kg	5					
Aroclor-1242	U	ND	6.00	18.0	ug/kg	5					
Aroclor-1248	U	ND	6.00	18.0	ug/kg	5					
Aroclor-1254	U	ND	6.00	18.0	ug/kg	5					
Aroclor-1260	U	ND	6.00	18.0	ug/kg	5					

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDD	U	ND	0.721	2.88	ug/kg	2	JXM	04/07/13	1754	1292756	7
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Client Sample ID:	PC-SS-01-0-1	Project:	CHAR00712C
Sample ID:	322828008	Client ID:	GEEL003

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDE	J	0.915	0.721	2.88	ug/kg	2						
Aldrin	U	ND	0.360	1.44	ug/kg	2						
Chlordane (tech.)	U	ND	3.60	18.0	ug/kg	2						
Dieldrin	U	ND	0.721	2.88	ug/kg	2						
Endosulfan I	U	ND	0.360	1.44	ug/kg	2						
Endosulfan II	U	ND	0.721	2.88	ug/kg	2						
Endosulfan sulfate	U	ND	0.721	2.88	ug/kg	2						
Endrin	U	ND	0.721	2.88	ug/kg	2						
Endrin aldehyde	U	ND	0.721	2.88	ug/kg	2						
Endrin ketone	U	ND	0.721	2.88	ug/kg	2						
Heptachlor	U	ND	0.360	1.44	ug/kg	2						
Heptachlor epoxide	U	ND	0.360	1.44	ug/kg	2						
Methoxychlor	U	ND	3.60	14.4	ug/kg	2						
Toxaphene	U	ND	12.0	36.0	ug/kg	2						
alpha-BHC	U	ND	0.360	1.44	ug/kg	2						
beta-BHC	U	ND	0.360	1.44	ug/kg	2						
delta-BHC	U	ND	0.360	1.44	ug/kg	2						
gamma-BHC (Lindane)	U	ND	0.360	1.44	ug/kg	2						
4,4'-DDT	JP	2.34	0.721	2.88	ug/kg	2	JXM	04/07/13	1754	1292756	8	

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.378	1.26	ug/kg	1	RXY1	04/11/13	1110	1294273	9	
1,1,2,2-Tetrachloroethane	U	ND	0.378	1.26	ug/kg	1						
1,1,2-Trichloroethane	U	ND	0.378	1.26	ug/kg	1						
1,1-Dichloroethane	U	ND	0.378	1.26	ug/kg	1						
1,1-Dichloroethylene	U	ND	0.378	1.26	ug/kg	1						
1,2,3-Trichlorobenzene	U	ND	0.505	1.26	ug/kg	1						
1,2,4-Trichlorobenzene	U	ND	0.378	1.26	ug/kg	1						
1,2-Dibromo-3-chloropropane	U	ND	0.631	1.26	ug/kg	1						
1,2-Dibromoethane	U	ND	0.378	1.26	ug/kg	1						
1,2-Dichlorobenzene	U	ND	0.378	1.26	ug/kg	1						
1,2-Dichloroethane	U	ND	0.378	1.26	ug/kg	1						
1,2-Dichloropropane	U	ND	0.378	1.26	ug/kg	1						
1,3-Dichlorobenzene	U	ND	0.378	1.26	ug/kg	1						
1,4-Dichlorobenzene	U	ND	0.378	1.26	ug/kg	1						
1,4-Dioxane	U	ND	18.9	63.1	ug/kg	1						

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-0-1	Project:	CHAR00712C
Sample ID:	322828008	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

2-Butanone	U	ND	1.89	6.31	ug/kg	1
2-Hexanone	U	ND	1.89	6.31	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.89	6.31	ug/kg	1
Acetone	U	ND	1.89	6.31	ug/kg	1
Benzene	U	ND	0.378	1.26	ug/kg	1
Bromochloromethane	U	ND	0.378	1.26	ug/kg	1
Bromodichloromethane	U	ND	0.378	1.26	ug/kg	1
Bromoform	U	ND	0.378	1.26	ug/kg	1
Bromomethane	U	ND	0.378	1.26	ug/kg	1
Carbon disulfide	U	ND	1.89	6.31	ug/kg	1
Carbon tetrachloride	U	ND	0.378	1.26	ug/kg	1
Chlorobenzene	U	ND	0.378	1.26	ug/kg	1
Chloroethane	U	ND	0.378	1.26	ug/kg	1
Chloroform	U	ND	0.378	1.26	ug/kg	1
Chloromethane	U	ND	0.378	1.26	ug/kg	1
Cyclohexane	U	ND	0.378	1.26	ug/kg	1
Dibromochloromethane	U	ND	0.378	1.26	ug/kg	1
Dichlorodifluoromethane	U	ND	0.378	1.26	ug/kg	1
Ethylbenzene	U	ND	0.378	1.26	ug/kg	1
Isopropylbenzene	U	ND	0.378	1.26	ug/kg	1
Methyl acetate	U	ND	1.89	6.31	ug/kg	1
Methylcyclohexane	U	ND	0.505	1.26	ug/kg	1
Methylene chloride	U	ND	2.52	6.31	ug/kg	1
Styrene	U	ND	0.378	1.26	ug/kg	1
Tetrachloroethylene	U	ND	0.378	1.26	ug/kg	1
Toluene	U	ND	0.378	1.26	ug/kg	1
Trichloroethylene	U	ND	0.378	1.26	ug/kg	1
Trichlorofluoromethane	U	ND	0.378	1.26	ug/kg	1
Trichlorotrifluoroethane	U	ND	1.89	6.31	ug/kg	1
Vinyl chloride	U	ND	0.378	1.26	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.378	1.26	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.378	1.26	ug/kg	1
m,p-Xylenes	U	ND	0.378	2.52	ug/kg	1
o-Xylene	U	ND	0.378	1.26	ug/kg	1
tert-Butyl methyl ether	U	ND	0.378	1.26	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.378	1.26	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-0-1	Project:	CHAR00712C
Sample ID:	322828008	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

trans-1,3-Dichloropropylene	U	ND	0.378	1.26	ug/kg	1
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3541	Prep Method 3541 8081B Prep Soil	MXS3	04/04/13	1045	1292755
SW846 3541	Prep Method 3541 PCB Prep Soil	MXS3	04/03/13	1059	1292525
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1315	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 3541/8082A			
6	SW846 3541/8082A			
7	SW846 3541/8081B			
8	SW846 3541/8081B			
9	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	893 ug/kg	1800	49.5	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	822 ug/kg	1800	45.6	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1180 ug/kg	1800	65.6	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1870 ug/kg	3610	51.8	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1910 ug/kg	3610	52.9	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1910 ug/kg	3610	53.0	(30%-107%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	5.26 ug/kg	7.21	73.0	(37%-121%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-SS-01-0-1 Project: CHAR00712C
Sample ID: 322828008 Client ID: GEEL003

Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	4.81 ug/kg	7.21	66.8	(34%-121%)
4cmx	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	30.8 ug/kg	36.0	85.6	(26%-110%)
Decachlorobiphenyl	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	29.0 ug/kg	36.0	80.6	(37%-136%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	56.7 ug/kg	50.0	90.0	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	69.4 ug/kg	50.0	110	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	63.5 ug/kg	50.0	101	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-4-5	Project:	CHAR00712C
Sample ID:	322828009	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 13:25		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	15.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury	U	ND	4.62	13.8	ug/kg	1	BCD1	04/04/13	1119	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		7480000	7930	23300	ug/kg	1	JWJ	04/08/13	1530	1292640	2
Arsenic	J	741	583	3500	ug/kg	1					
Barium		17000	117	583	ug/kg	1					
Beryllium	J	202	117	583	ug/kg	1					
Cadmium	U	ND	117	583	ug/kg	1					
Calcium		808000	9330	29200	ug/kg	1					
Chromium		8820	175	583	ug/kg	1					
Cobalt		1140	175	583	ug/kg	1					
Copper	U	ND	350	1170	ug/kg	1					
Iron		4160000	9330	29200	ug/kg	1					
Lead		4680	385	1170	ug/kg	1					
Magnesium		342000	9910	35000	ug/kg	1					
Manganese		7740	233	1170	ug/kg	1					
Nickel		1300	175	583	ug/kg	1					
Potassium		235000	7470	29200	ug/kg	1					
Selenium	U	ND	583	3500	ug/kg	1					
Silver	U	ND	117	583	ug/kg	1					
Sodium		54100	8170	29200	ug/kg	1					
Thallium	U	ND	583	2330	ug/kg	1					
Vanadium		10400	117	583	ug/kg	1					
Zinc		3740	467	1170	ug/kg	1					
Antimony	J	513	385	1170	ug/kg	1	JWJ	04/10/13	1321	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	118	393	ug/kg	1	JMB3	04/09/13	2217	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	118	393	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	118	393	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	118	393	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	118	393	ug/kg	1					
2,4-Dichlorophenol	U	ND	118	393	ug/kg	1					
2,4-Dimethylphenol	U	ND	118	393	ug/kg	1					
2,4-Dinitrophenol	U	ND	118	786	ug/kg	1					

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Client Sample ID: PC-SS-01-4-5
 Sample ID: 322828009

Project: CHAR00712C
 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	118	393	ug/kg	1
2,6-Dinitrotoluene	U	ND	118	393	ug/kg	1
2-Chloronaphthalene	U	ND	11.8	39.3	ug/kg	1
2-Chlorophenol	U	ND	118	393	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	118	393	ug/kg	1
2-Methylnaphthalene	U	ND	11.8	39.3	ug/kg	1
2-Nitrophenol	U	ND	118	393	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	118	393	ug/kg	1
4-Bromophenylphenylether	U	ND	118	393	ug/kg	1
4-Chloro-3-methylphenol	U	ND	157	393	ug/kg	1
4-Chloroaniline	U	ND	118	393	ug/kg	1
4-Chlorophenylphenylether	U	ND	118	393	ug/kg	1
4-Nitrophenol	U	ND	118	393	ug/kg	1
Acenaphthene	U	ND	11.8	39.3	ug/kg	1
Acenaphthylene	U	ND	11.8	39.3	ug/kg	1
Acetophenone	U	ND	118	393	ug/kg	1
Anthracene	U	ND	11.8	39.3	ug/kg	1
Atrazine	U	ND	157	393	ug/kg	1
Benzaldehyde	U	ND	118	393	ug/kg	1
Benzo(a)anthracene	U	ND	11.8	39.3	ug/kg	1
Benzo(a)pyrene	U	ND	11.8	39.3	ug/kg	1
Benzo(b)fluoranthene	U	ND	11.8	39.3	ug/kg	1
Benzo(ghi)perylene	U	ND	11.8	39.3	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.8	39.3	ug/kg	1
Butylbenzylphthalate	U	ND	118	393	ug/kg	1
Caprolactam	U	ND	118	393	ug/kg	1
Carbazole	U	ND	11.8	39.3	ug/kg	1
Chrysene	U	ND	11.8	39.3	ug/kg	1
Di-n-butylphthalate	U	ND	118	393	ug/kg	1
Di-n-octylphthalate	U	ND	118	393	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.8	39.3	ug/kg	1
Dibenzo-furan	U	ND	118	393	ug/kg	1
Diethylphthalate	U	ND	118	393	ug/kg	1
Dimethylphthalate	U	ND	118	393	ug/kg	1
Diphenylamine	U	ND	118	393	ug/kg	1
Fluoranthene	U	ND	11.8	39.3	ug/kg	1

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 Contact: Charleston, South Carolina 29417
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 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-4-5	Project:	CHAR00712C
Sample ID:	322828009	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.8	39.3	ug/kg	1
Hexachlorobenzene	U	ND	118	393	ug/kg	1
Hexachlorobutadiene	U	ND	118	393	ug/kg	1
Hexachlorocyclopentadiene	U	ND	118	393	ug/kg	1
Hexachloroethane	U	ND	118	393	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.8	39.3	ug/kg	1
Isophorone	U	ND	118	393	ug/kg	1
N-Nitrosodipropylamine	U	ND	118	393	ug/kg	1
Naphthalene	U	ND	11.8	39.3	ug/kg	1
Nitrobenzene	U	ND	118	393	ug/kg	1
Pentachlorophenol	U	ND	118	393	ug/kg	1
Phenanthrene	U	ND	11.8	39.3	ug/kg	1
Phenol	U	ND	118	393	ug/kg	1
Pyrene	U	ND	11.8	39.3	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	118	393	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	118	393	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	118	393	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	118	393	ug/kg	1
m,p-Cresols	U	ND	118	393	ug/kg	1
m-Nitroaniline	U	ND	118	393	ug/kg	1
o-Cresol	U	ND	118	393	ug/kg	1
o-Nitroaniline	U	ND	130	393	ug/kg	1
p-Nitroaniline	U	ND	118	393	ug/kg	1

Semi-Volatiles-PCB

SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"

Aroclor-1016	U	ND	1.30	3.90	ug/kg	1	YS1	04/05/13	1416	1292526	5
Aroclor-1221	U	ND	1.30	3.90	ug/kg	1					
Aroclor-1232	U	ND	1.30	3.90	ug/kg	1					
Aroclor-1242	U	ND	1.30	3.90	ug/kg	1					
Aroclor-1248	U	ND	1.30	3.90	ug/kg	1					
Aroclor-1254	U	ND	1.30	3.90	ug/kg	1					
Aroclor-1260	U	ND	1.30	3.90	ug/kg	1					

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDD	U	ND	0.393	1.57	ug/kg	1	JXM	04/05/13	1100	1292756	7
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Certificate of Analysis

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 Address : 2040 Savage Rd

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 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-01-4-5
 Sample ID: 322828009

Project: CHAR00712C
 Client ID: GEEL003

Semi-Volatiles-Pesticide

8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"

4,4'-DDE	U	ND	0.393	1.57	ug/kg	1
4,4'-DDT	U	ND	0.393	1.57	ug/kg	1
Aldrin	U	ND	0.197	0.787	ug/kg	1
Chlordane (tech.)	U	ND	1.97	9.84	ug/kg	1
Dieldrin	U	ND	0.393	1.57	ug/kg	1
Endosulfan I	U	ND	0.197	0.787	ug/kg	1
Endosulfan II	U	ND	0.393	1.57	ug/kg	1
Endosulfan sulfate	U	ND	0.393	1.57	ug/kg	1
Endrin	U	ND	0.393	1.57	ug/kg	1
Endrin aldehyde	U	ND	0.393	1.57	ug/kg	1
Endrin ketone	U	ND	0.393	1.57	ug/kg	1
Heptachlor	U	ND	0.197	0.787	ug/kg	1
Heptachlor epoxide	U	ND	0.197	0.787	ug/kg	1
Methoxychlor	U	ND	1.97	7.87	ug/kg	1
Toxaphene	U	ND	6.55	19.7	ug/kg	1
alpha-BHC	U	ND	0.197	0.787	ug/kg	1
beta-BHC	U	ND	0.197	0.787	ug/kg	1
delta-BHC	U	ND	0.197	0.787	ug/kg	1
gamma-BHC (Lindane)	U	ND	0.197	0.787	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.240	0.801	ug/kg	1	RXY1	04/11/13	1137	1294273	9
1,1,2,2-Tetrachloroethane	U	ND	0.240	0.801	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.240	0.801	ug/kg	1					
1,1-Dichloroethane	U	ND	0.240	0.801	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.240	0.801	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.320	0.801	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.240	0.801	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.400	0.801	ug/kg	1					
1,2-Dibromoethane	U	ND	0.240	0.801	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.240	0.801	ug/kg	1					
1,2-Dichloroethane	U	ND	0.240	0.801	ug/kg	1					
1,2-Dichloropropane	U	ND	0.240	0.801	ug/kg	1					
1,3-Dichlorobenzene	U	ND	0.240	0.801	ug/kg	1					
1,4-Dichlorobenzene	U	ND	0.240	0.801	ug/kg	1					
1,4-Dioxane	U	ND	12.0	40.0	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-01-4-5
 Sample ID: 322828009

Project: CHAR00712C
 Client ID: GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

2-Butanone	U	ND	1.20	4.00	ug/kg	1
2-Hexanone	U	ND	1.20	4.00	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.20	4.00	ug/kg	1
Acetone	U	ND	1.20	4.00	ug/kg	1
Benzene	U	ND	0.240	0.801	ug/kg	1
Bromochloromethane	U	ND	0.240	0.801	ug/kg	1
Bromodichloromethane	U	ND	0.240	0.801	ug/kg	1
Bromoform	U	ND	0.240	0.801	ug/kg	1
Bromomethane	U	ND	0.240	0.801	ug/kg	1
Carbon disulfide	U	ND	1.20	4.00	ug/kg	1
Carbon tetrachloride	U	ND	0.240	0.801	ug/kg	1
Chlorobenzene	U	ND	0.240	0.801	ug/kg	1
Chloroethane	U	ND	0.240	0.801	ug/kg	1
Chloroform	U	ND	0.240	0.801	ug/kg	1
Chloromethane	U	ND	0.240	0.801	ug/kg	1
Cyclohexane	U	ND	0.240	0.801	ug/kg	1
Dibromochloromethane	U	ND	0.240	0.801	ug/kg	1
Dichlorodifluoromethane	U	ND	0.240	0.801	ug/kg	1
Ethylbenzene	U	ND	0.240	0.801	ug/kg	1
Isopropylbenzene	U	ND	0.240	0.801	ug/kg	1
Methyl acetate	U	ND	1.20	4.00	ug/kg	1
Methylcyclohexane	U	ND	0.320	0.801	ug/kg	1
Methylene chloride	U	ND	1.60	4.00	ug/kg	1
Styrene	U	ND	0.240	0.801	ug/kg	1
Tetrachloroethylene	U	ND	0.240	0.801	ug/kg	1
Toluene	U	ND	0.240	0.801	ug/kg	1
Trichloroethylene	U	ND	0.240	0.801	ug/kg	1
Trichlorofluoromethane	U	ND	0.240	0.801	ug/kg	1
Trichlorotrifluoroethane	U	ND	1.20	4.00	ug/kg	1
Vinyl chloride	U	ND	0.240	0.801	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.240	0.801	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.240	0.801	ug/kg	1
m,p-Xylenes	U	ND	0.240	1.60	ug/kg	1
o-Xylene	U	ND	0.240	0.801	ug/kg	1
tert-Butyl methyl ether	U	ND	0.240	0.801	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.240	0.801	ug/kg	1

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Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-01-4-5	Project:	CHAR00712C
Sample ID:	322828009	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

trans-1,3-Dichloropropylene	U	ND	0.240	0.801	ug/kg	1
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The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3541	Prep Method 3541 8081B Prep Soil	MXS3	04/04/13	1045	1292755
SW846 3541	Prep Method 3541 PCB Prep Soil	MXS3	04/03/13	1059	1292525
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1325	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 3541/8082A			
6	SW846 3541/8082A			
7	SW846 3541/8081B			
8	SW846 3541/8081B			
9	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	997 ug/kg	1960	50.7	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1020 ug/kg	1960	51.7	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1680 ug/kg	1960	85.6	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2490 ug/kg	3930	63.3	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2310 ug/kg	3930	58.8	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2220 ug/kg	3930	56.6	(30%-107%)
4cmx	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	8.08 ug/kg	7.80	104	(37%-121%)

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Certificate of Analysis

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Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-SS-01-4-5 Project: CHAR00712C
Sample ID: 322828009 Client ID: GEEL003

Decachlorobiphenyl	SW846 3541/8082A PCB Solid Automated Soxhlet "Dry Weight Corrected"	8.96 ug/kg	7.80	115	(34%-121%)
4cmx	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	31.1 ug/kg	39.3	79.1	(26%-110%)
Decachlorobiphenyl	8081B/3541 Pesticide Soil Automated Soxhlet "Dry Weight Corrected"	33.5 ug/kg	39.3	85.1	(37%-136%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	37.2 ug/kg	50.0	92.9	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	40.5 ug/kg	50.0	101	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	37.7 ug/kg	50.0	94.1	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-01	Project:	CHAR00712C
Sample ID:	322828010	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 13:20		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0917	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum	U	ND	68.0	200	ug/L	1	LS	04/04/13	1744	1292561	2
Barium		8.22	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium		73900	50.0	200	ug/L	1					
Chromium	U	ND	1.00	5.00	ug/L	1					
Cobalt	J	3.53	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron		16500	30.0	100	ug/L	1					
Magnesium		10400	110	300	ug/L	1					
Manganese		306	2.00	10.0	ug/L	1					
Nickel	J	2.15	1.50	5.00	ug/L	1					
Potassium		10000	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		19600	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium	J	1.32	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1229	1292561	3
Arsenic	J	24.8	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1525	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1447	1292561	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-01 Project: CHAR00712C
Sample ID: 322828010 Client ID: GEEL003

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3010A/6010C	
3	SW846 3010A/6010C	
4	SW846 3010A/6010C	
5	SW846 3010A/6010C	

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-EB-040113	Project:	CHAR00712C
Sample ID:	322828011	Client ID:	GEEL003
Matrix:	Water		
Collect Date:	01-APR-13 14:10		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0919	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum	U	ND	68.0	200	ug/L	1	LS	04/04/13	1746	1292561	2
Barium	J	1.42	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium		1070	50.0	200	ug/L	1					
Chromium	U	ND	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron	U	ND	30.0	100	ug/L	1					
Magnesium	J	129	110	300	ug/L	1					
Manganese	U	ND	2.00	10.0	ug/L	1					
Nickel	U	ND	1.50	5.00	ug/L	1					
Potassium	J	121	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		923	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium	U	ND	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1231	1292561	3
Arsenic	U	ND	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1527	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1449	1292561	5
Semi-Volatile-GC/MS											
8270D Semivolatile Analysis by Separatory Funnel "As Received"											
1,1'-Biphenyl	U	ND	3.00	10.0	ug/L	1	AGS1	04/03/13	2322	1292495	6
1,2,4,5-Tetrachlorobenzene	U	ND	3.00	10.0	ug/L	1					
2,3,4,6-Tetrachlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dimethylphenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dinitrophenol	U	ND	5.00	20.0	ug/L	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-EB-040113 Project: CHAR00712C
Sample ID: 322828011 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

2,4-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2,6-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2-Chloronaphthalene	U	ND	0.300	1.00	ug/L	1
2-Chlorophenol	U	ND	3.00	10.0	ug/L	1
2-Methyl-4,6-dinitrophenol	U	ND	3.00	10.0	ug/L	1
2-Methylnaphthalene	U	ND	0.300	1.00	ug/L	1
2-Nitrophenol	U	ND	3.00	10.0	ug/L	1
3,3'-Dichlorobenzidine	U	ND	3.00	10.0	ug/L	1
4-Bromophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Chloro-3-methylphenol	U	ND	3.00	10.0	ug/L	1
4-Chloroaniline	U	ND	3.30	10.0	ug/L	1
4-Chlorophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Nitrophenol	U	ND	3.00	10.0	ug/L	1
Acenaphthene	U	ND	0.300	1.00	ug/L	1
Acenaphthylene	U	ND	0.300	1.00	ug/L	1
Acetophenone	U	ND	3.00	10.0	ug/L	1
Anthracene	U	ND	0.300	1.00	ug/L	1
Atrazine	U	ND	3.00	10.0	ug/L	1
Benzaldehyde	U	ND	5.00	10.0	ug/L	1
Benzo(a)anthracene	U	ND	0.300	1.00	ug/L	1
Benzo(a)pyrene	U	ND	0.440	1.00	ug/L	1
Benzo(b)fluoranthene	U	ND	0.300	1.00	ug/L	1
Benzo(ghi)perylene	U	ND	0.300	1.00	ug/L	1
Benzo(k)fluoranthene	U	ND	0.300	1.00	ug/L	1
Butylbenzylphthalate	U	ND	3.00	10.0	ug/L	1
Caprolactam	U	ND	3.00	10.0	ug/L	1
Carbazole	U	ND	0.300	1.00	ug/L	1
Chrysene	U	ND	0.300	1.00	ug/L	1
Di-n-butylphthalate	U	ND	3.00	10.0	ug/L	1
Di-n-octylphthalate	U	ND	3.00	10.0	ug/L	1
Dibenzo(a,h)anthracene	U	ND	0.300	1.00	ug/L	1
Dibenzo-furan	U	ND	3.00	10.0	ug/L	1
Diethylphthalate	U	ND	3.00	10.0	ug/L	1
Dimethylphthalate	U	ND	3.00	10.0	ug/L	1
Diphenylamine	U	ND	3.00	10.0	ug/L	1
Fluoranthene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-EB-040113	Project:	CHAR00712C
Sample ID:	322828011	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

Fluorene	U	ND	0.300	1.00	ug/L	1
Hexachlorobenzene	U	ND	3.00	10.0	ug/L	1
Hexachlorobutadiene	U	ND	3.00	10.0	ug/L	1
Hexachlorocyclopentadiene	U	ND	3.00	10.0	ug/L	1
Hexachloroethane	U	ND	3.00	10.0	ug/L	1
Indeno(1,2,3-cd)pyrene	U	ND	0.300	1.00	ug/L	1
Isophorone	U	ND	3.00	10.0	ug/L	1
N-Nitrosodipropylamine	U	ND	3.00	10.0	ug/L	1
Naphthalene	U	ND	0.300	1.00	ug/L	1
Nitrobenzene	U	ND	3.00	10.0	ug/L	1
Pentachlorophenol	U	ND	3.00	10.0	ug/L	1
Phenanthrene	U	ND	0.300	1.00	ug/L	1
Phenol	U	ND	3.00	10.0	ug/L	1
Pyrene	U	ND	0.300	1.00	ug/L	1
bis(2-Chloroethoxy)methane	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroethyl) ether	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroisopropyl)ether	U	ND	3.00	10.0	ug/L	1
bis(2-Ethylhexyl)phthalate	U	ND	3.00	10.0	ug/L	1
m,p-Cresols	U	ND	3.00	10.0	ug/L	1
m-Nitroaniline	U	ND	3.00	10.0	ug/L	1
o-Cresol	U	ND	3.00	10.0	ug/L	1
o-Nitroaniline	U	ND	3.00	10.0	ug/L	1
p-Nitroaniline	U	ND	3.00	10.0	ug/L	1

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1543	1293571	7
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	U	ND	0.300	1.00	ug/L	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-EB-040113 Project: CHAR00712C
Sample ID: 322828011 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1
2-Butanone	U	ND	2.00	5.00	ug/L	1
2-Hexanone	U	ND	2.20	5.00	ug/L	1
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1
Acetone	U	ND	2.50	5.00	ug/L	1
Benzene	U	ND	0.300	1.00	ug/L	1
Bromochloromethane	U	ND	0.300	1.00	ug/L	1
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1
Bromoform	U	ND	0.300	1.00	ug/L	1
Bromomethane	U	ND	0.300	1.00	ug/L	1
Carbon disulfide	U	ND	1.50	5.00	ug/L	1
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1
Chlorobenzene	U	ND	0.300	1.00	ug/L	1
Chloroethane	U	ND	0.300	1.00	ug/L	1
Chloroform	U	ND	0.300	1.00	ug/L	1
Chloromethane	U	ND	0.300	1.00	ug/L	1
Cyclohexane	U	ND	0.300	1.00	ug/L	1
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1
Ethylbenzene	U	ND	0.300	1.00	ug/L	1
Isopropylbenzene	U	ND	0.300	1.00	ug/L	1
Methyl acetate	U	ND	1.50	5.00	ug/L	1
Methylcyclohexane	U	ND	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	U	ND	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethylene	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-EB-040113 Project: CHAR00712C
Sample ID: 322828011 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 3510C	SW846 3510C Prep Semivolatiles 8270D	DXF4	04/03/13	0850	1292494
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7470A		
2	SW846 3010A/6010C		
3	SW846 3010A/6010C		
4	SW846 3010A/6010C		
5	SW846 3010A/6010C		
6	SW846 3510C/8270D		
7	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	86.0 ug/L	100	86.0	(23%-130%)
2-Fluorophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	53.4 ug/L	100	53.4	(14%-77%)
Phenol-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	34.1 ug/L	100	34.1	(10%-78%)
2-Fluorobiphenyl	8270D Semivolatile Analysis by Separatory Funnel "As Received"	30.9 ug/L	50.0	61.9	(30%-104%)
Nitrobenzene-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	37.1 ug/L	50.0	74.2	(34%-125%)
p-Terphenyl-d14	8270D Semivolatile Analysis by Separatory Funnel "As Received"	39.2 ug/L	50.0	78.5	(33%-136%)
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	49.3 ug/L	50.0	98.7	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	52.3 ug/L	50.0	105	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	50.9 ug/L	50.0	102	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03	Project:	CHAR00712C
Sample ID:	322828012	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 14:55		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0921	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum		18200	68.0	200	ug/L	1	LS	04/04/13	1749	1292561	2
Barium		73.9	1.00	5.00	ug/L	1					
Beryllium	J	1.48	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium		98700	50.0	200	ug/L	1					
Chromium		40.4	1.00	5.00	ug/L	1					
Cobalt	J	2.18	1.00	5.00	ug/L	1					
Copper	J	7.35	3.00	10.0	ug/L	1					
Iron		34400	30.0	100	ug/L	1					
Magnesium		22700	110	300	ug/L	1					
Manganese		109	2.00	10.0	ug/L	1					
Nickel		6.34	1.50	5.00	ug/L	1					
Potassium		25500	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		52300	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium		56.4	1.00	5.00	ug/L	1					
Zinc		17.1	3.30	10.0	ug/L	1					
Antimony	J	4.28	3.50	10.0	ug/L	1	LS	04/05/13	1234	1292561	3
Arsenic	J	26.6	5.00	30.0	ug/L	1					
Lead		15.4	3.30	10.0	ug/L	1	LS	04/09/13	1530	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1453	1292561	5
Semi-Volatile-GC/MS											
8270D Semivolatile Analysis by Separatory Funnel "As Received"											
1,1'-Biphenyl	U	ND	3.00	10.0	ug/L	1	AGS1	04/03/13	2351	1292495	6
1,2,4,5-Tetrachlorobenzene	U	ND	3.00	10.0	ug/L	1					
2,3,4,6-Tetrachlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dimethylphenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dinitrophenol	U	ND	5.00	20.0	ug/L	1					

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-03 Project: CHAR00712C
Sample ID: 322828012 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

2,4-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2,6-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2-Chloronaphthalene	U	ND	0.300	1.00	ug/L	1
2-Chlorophenol	U	ND	3.00	10.0	ug/L	1
2-Methyl-4,6-dinitrophenol	U	ND	3.00	10.0	ug/L	1
2-Methylnaphthalene		1.89	0.300	1.00	ug/L	1
2-Nitrophenol	U	ND	3.00	10.0	ug/L	1
3,3'-Dichlorobenzidine	U	ND	3.00	10.0	ug/L	1
4-Bromophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Chloro-3-methylphenol	U	ND	3.00	10.0	ug/L	1
4-Chloroaniline	U	ND	3.30	10.0	ug/L	1
4-Chlorophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Nitrophenol	U	ND	3.00	10.0	ug/L	1
Acenaphthene	U	ND	0.300	1.00	ug/L	1
Acenaphthylene	U	ND	0.300	1.00	ug/L	1
Acetophenone	U	ND	3.00	10.0	ug/L	1
Anthracene	U	ND	0.300	1.00	ug/L	1
Atrazine	U	ND	3.00	10.0	ug/L	1
Benzaldehyde	U	ND	5.00	10.0	ug/L	1
Benzo(a)anthracene	U	ND	0.300	1.00	ug/L	1
Benzo(a)pyrene	U	ND	0.440	1.00	ug/L	1
Benzo(b)fluoranthene	U	ND	0.300	1.00	ug/L	1
Benzo(ghi)perylene	U	ND	0.300	1.00	ug/L	1
Benzo(k)fluoranthene	U	ND	0.300	1.00	ug/L	1
Butylbenzylphthalate	U	ND	3.00	10.0	ug/L	1
Caprolactam	U	ND	3.00	10.0	ug/L	1
Carbazole	U	ND	0.300	1.00	ug/L	1
Chrysene	U	ND	0.300	1.00	ug/L	1
Di-n-butylphthalate	U	ND	3.00	10.0	ug/L	1
Di-n-octylphthalate	U	ND	3.00	10.0	ug/L	1
Dibenzo(a,h)anthracene	U	ND	0.300	1.00	ug/L	1
Dibenzo-furan	U	ND	3.00	10.0	ug/L	1
Diethylphthalate	U	ND	3.00	10.0	ug/L	1
Dimethylphthalate	U	ND	3.00	10.0	ug/L	1
Diphenylamine	U	ND	3.00	10.0	ug/L	1
Fluoranthene	U	ND	0.300	1.00	ug/L	1

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Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03	Project:	CHAR00712C
Sample ID:	322828012	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

Fluorene	U	ND	0.300	1.00	ug/L	1
Hexachlorobenzene	U	ND	3.00	10.0	ug/L	1
Hexachlorobutadiene	U	ND	3.00	10.0	ug/L	1
Hexachlorocyclopentadiene	U	ND	3.00	10.0	ug/L	1
Hexachloroethane	U	ND	3.00	10.0	ug/L	1
Indeno(1,2,3-cd)pyrene	U	ND	0.300	1.00	ug/L	1
Isophorone	U	ND	3.00	10.0	ug/L	1
N-Nitrosodipropylamine	U	ND	3.00	10.0	ug/L	1
Naphthalene		7.72	0.300	1.00	ug/L	1
Nitrobenzene	U	ND	3.00	10.0	ug/L	1
Pentachlorophenol	U	ND	3.00	10.0	ug/L	1
Phenanthrene	U	ND	0.300	1.00	ug/L	1
Phenol	U	ND	3.00	10.0	ug/L	1
Pyrene	U	ND	0.300	1.00	ug/L	1
bis(2-Chloroethoxy)methane	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroethyl) ether	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroisopropyl)ether	U	ND	3.00	10.0	ug/L	1
bis(2-Ethylhexyl)phthalate	U	ND	3.00	10.0	ug/L	1
m,p-Cresols	U	ND	3.00	10.0	ug/L	1
m-Nitroaniline	U	ND	3.00	10.0	ug/L	1
o-Cresol	U	ND	3.00	10.0	ug/L	1
o-Nitroaniline	U	ND	3.00	10.0	ug/L	1
p-Nitroaniline	U	ND	3.00	10.0	ug/L	1

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1707	1293571	7
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	J	0.670	0.300	1.00	ug/L	1					

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Client Sample ID: PC-MW-03 Project: CHAR00712C
Sample ID: 322828012 Client ID: GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1
2-Butanone	U	ND	2.00	5.00	ug/L	1
2-Hexanone	U	ND	2.20	5.00	ug/L	1
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1
Acetone	U	ND	2.50	5.00	ug/L	1
Benzene	J	0.990	0.300	1.00	ug/L	1
Bromochloromethane	U	ND	0.300	1.00	ug/L	1
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1
Bromoform	U	ND	0.300	1.00	ug/L	1
Bromomethane	U	ND	0.300	1.00	ug/L	1
Carbon disulfide	U	ND	1.50	5.00	ug/L	1
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1
Chlorobenzene	U	ND	0.300	1.00	ug/L	1
Chloroethane	U	ND	0.300	1.00	ug/L	1
Chloroform	U	ND	0.300	1.00	ug/L	1
Chloromethane	U	ND	0.300	1.00	ug/L	1
Cyclohexane		2.57	0.300	1.00	ug/L	1
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1
Ethylbenzene		1.57	0.300	1.00	ug/L	1
Isopropylbenzene		1.56	0.300	1.00	ug/L	1
Methyl acetate	U	ND	1.50	5.00	ug/L	1
Methylcyclohexane		2.82	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	U	ND	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethane	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

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Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03	Project:	CHAR00712C
Sample ID:	322828012	Client ID:	GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 3510C	SW846 3510C Prep Semivolatiles 8270D	DXF4	04/03/13	0850	1292494
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7470A		
2	SW846 3010A/6010C		
3	SW846 3010A/6010C		
4	SW846 3010A/6010C		
5	SW846 3010A/6010C		
6	SW846 3510C/8270D		
7	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	46.6 ug/L	100	46.6	(23%-130%)
2-Fluorophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	38.2 ug/L	100	38.2	(14%-77%)
Phenol-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	24.7 ug/L	100	24.7	(10%-78%)
2-Fluorobiphenyl	8270D Semivolatile Analysis by Separatory Funnel "As Received"	33.7 ug/L	50.0	67.5	(30%-104%)
Nitrobenzene-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	41.2 ug/L	50.0	82.4	(34%-125%)
p-Terphenyl-d14	8270D Semivolatile Analysis by Separatory Funnel "As Received"	39.4 ug/L	50.0	78.8	(33%-136%)
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	50.1 ug/L	50.0	100	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	52.8 ug/L	50.0	106	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	50.6 ug/L	50.0	101	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03-D	Project:	CHAR00712C
Sample ID:	322828013	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 14:55		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0922	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum		2120	68.0	200	ug/L	1	LS	04/04/13	1752	1292561	2
Barium		18.7	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium		93900	50.0	200	ug/L	1					
Chromium	J	4.62	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron		10500	30.0	100	ug/L	1					
Magnesium		19800	110	300	ug/L	1					
Manganese		67.7	2.00	10.0	ug/L	1					
Nickel	J	1.76	1.50	5.00	ug/L	1					
Potassium		23500	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		50200	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium		14.6	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1236	1292561	3
Arsenic	J	14.1	5.00	30.0	ug/L	1					
Lead	J	3.92	3.30	10.0	ug/L	1	LS	04/09/13	1532	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1455	1292561	5
Semi-Volatile-GC/MS											
8270D Semivolatile Analysis by Separatory Funnel "As Received"											
1,1'-Biphenyl	U	ND	3.00	10.0	ug/L	1	AGS1	04/04/13	0020	1292495	6
1,2,4,5-Tetrachlorobenzene	U	ND	3.00	10.0	ug/L	1					
2,3,4,6-Tetrachlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,5-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4,6-Trichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dichlorophenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dimethylphenol	U	ND	3.00	10.0	ug/L	1					
2,4-Dinitrophenol	U	ND	5.00	20.0	ug/L	1					

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Phase II ESA, Post and Courier

Client Sample ID: PC-MW-03-D Project: CHAR00712C
Sample ID: 322828013 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

2,4-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2,6-Dinitrotoluene	U	ND	3.00	10.0	ug/L	1
2-Chloronaphthalene	U	ND	0.300	1.00	ug/L	1
2-Chlorophenol	U	ND	3.00	10.0	ug/L	1
2-Methyl-4,6-dinitrophenol	U	ND	3.00	10.0	ug/L	1
2-Methylnaphthalene		1.41	0.300	1.00	ug/L	1
2-Nitrophenol	U	ND	3.00	10.0	ug/L	1
3,3'-Dichlorobenzidine	U	ND	3.00	10.0	ug/L	1
4-Bromophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Chloro-3-methylphenol	U	ND	3.00	10.0	ug/L	1
4-Chloroaniline	U	ND	3.30	10.0	ug/L	1
4-Chlorophenylphenylether	U	ND	3.00	10.0	ug/L	1
4-Nitrophenol	U	ND	3.00	10.0	ug/L	1
Acenaphthene	U	ND	0.300	1.00	ug/L	1
Acenaphthylene	U	ND	0.300	1.00	ug/L	1
Acetophenone	U	ND	3.00	10.0	ug/L	1
Anthracene	U	ND	0.300	1.00	ug/L	1
Atrazine	U	ND	3.00	10.0	ug/L	1
Benzaldehyde	U	ND	5.00	10.0	ug/L	1
Benzo(a)anthracene	U	ND	0.300	1.00	ug/L	1
Benzo(a)pyrene	U	ND	0.440	1.00	ug/L	1
Benzo(b)fluoranthene	U	ND	0.300	1.00	ug/L	1
Benzo(ghi)perylene	U	ND	0.300	1.00	ug/L	1
Benzo(k)fluoranthene	U	ND	0.300	1.00	ug/L	1
Butylbenzylphthalate	U	ND	3.00	10.0	ug/L	1
Caprolactam	U	ND	3.00	10.0	ug/L	1
Carbazole	U	ND	0.300	1.00	ug/L	1
Chrysene	U	ND	0.300	1.00	ug/L	1
Di-n-butylphthalate	U	ND	3.00	10.0	ug/L	1
Di-n-octylphthalate	U	ND	3.00	10.0	ug/L	1
Dibenzo(a,h)anthracene	U	ND	0.300	1.00	ug/L	1
Dibenzo-furan	U	ND	3.00	10.0	ug/L	1
Diethylphthalate	U	ND	3.00	10.0	ug/L	1
Dimethylphthalate	U	ND	3.00	10.0	ug/L	1
Diphenylamine	U	ND	3.00	10.0	ug/L	1
Fluoranthene	U	ND	0.300	1.00	ug/L	1

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Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03-D	Project:	CHAR00712C
Sample ID:	322828013	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D Semivolatile Analysis by Separatory Funnel "As Received"

Fluorene	U	ND	0.300	1.00	ug/L	1
Hexachlorobenzene	U	ND	3.00	10.0	ug/L	1
Hexachlorobutadiene	U	ND	3.00	10.0	ug/L	1
Hexachlorocyclopentadiene	U	ND	3.00	10.0	ug/L	1
Hexachloroethane	U	ND	3.00	10.0	ug/L	1
Indeno(1,2,3-cd)pyrene	U	ND	0.300	1.00	ug/L	1
Isophorone	U	ND	3.00	10.0	ug/L	1
N-Nitrosodipropylamine	U	ND	3.00	10.0	ug/L	1
Naphthalene		7.28	0.300	1.00	ug/L	1
Nitrobenzene	U	ND	3.00	10.0	ug/L	1
Pentachlorophenol	U	ND	3.00	10.0	ug/L	1
Phenanthrene	U	ND	0.300	1.00	ug/L	1
Phenol	U	ND	3.00	10.0	ug/L	1
Pyrene	U	ND	0.300	1.00	ug/L	1
bis(2-Chloroethoxy)methane	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroethyl) ether	U	ND	3.00	10.0	ug/L	1
bis(2-Chloroisopropyl)ether	U	ND	3.00	10.0	ug/L	1
bis(2-Ethylhexyl)phthalate	U	ND	3.00	10.0	ug/L	1
m,p-Cresols	U	ND	3.00	10.0	ug/L	1
m-Nitroaniline	U	ND	3.00	10.0	ug/L	1
o-Cresol	U	ND	3.00	10.0	ug/L	1
o-Nitroaniline	U	ND	3.00	10.0	ug/L	1
p-Nitroaniline	U	ND	3.00	10.0	ug/L	1

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,1,1-Trichloroethane	U	ND	0.300	1.00	ug/L	1	RXY1	04/08/13	1735	1293571	7
1,1,2,2-Tetrachloroethane	U	ND	0.300	1.00	ug/L	1					
1,1,2-Trichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethane	U	ND	0.300	1.00	ug/L	1					
1,1-Dichloroethylene	U	ND	0.300	1.00	ug/L	1					
1,2,3-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2,4-Trichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dibromo-3-chloropropane	U	ND	0.500	1.00	ug/L	1					
1,2-Dibromoethane	U	ND	0.300	1.00	ug/L	1					
1,2-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1					
1,2-Dichloroethane	J	0.640	0.300	1.00	ug/L	1					

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03-D	Project:	CHAR00712C
Sample ID:	322828013	Client ID:	GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

1,2-Dichloropropane	U	ND	0.300	1.00	ug/L	1
1,3-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dichlorobenzene	U	ND	0.300	1.00	ug/L	1
1,4-Dioxane	U	ND	15.0	50.0	ug/L	1
2-Butanone	U	ND	2.00	5.00	ug/L	1
2-Hexanone	U	ND	2.20	5.00	ug/L	1
4-Methyl-2-pentanone	U	ND	1.50	5.00	ug/L	1
Acetone	U	ND	2.50	5.00	ug/L	1
Benzene		1.01	0.300	1.00	ug/L	1
Bromochloromethane	U	ND	0.300	1.00	ug/L	1
Bromodichloromethane	U	ND	0.300	1.00	ug/L	1
Bromoform	U	ND	0.300	1.00	ug/L	1
Bromomethane	U	ND	0.300	1.00	ug/L	1
Carbon disulfide	U	ND	1.50	5.00	ug/L	1
Carbon tetrachloride	U	ND	0.300	1.00	ug/L	1
Chlorobenzene	U	ND	0.300	1.00	ug/L	1
Chloroethane	U	ND	0.300	1.00	ug/L	1
Chloroform	U	ND	0.300	1.00	ug/L	1
Chloromethane	U	ND	0.300	1.00	ug/L	1
Cyclohexane		2.76	0.300	1.00	ug/L	1
Dibromochloromethane	U	ND	0.300	1.00	ug/L	1
Dichlorodifluoromethane	U	ND	0.300	1.00	ug/L	1
Ethylbenzene		1.63	0.300	1.00	ug/L	1
Isopropylbenzene		1.61	0.300	1.00	ug/L	1
Methyl acetate	U	ND	1.50	5.00	ug/L	1
Methylcyclohexane		3.10	0.300	1.00	ug/L	1
Methylene chloride	U	ND	1.00	5.00	ug/L	1
Styrene	U	ND	0.300	1.00	ug/L	1
Tetrachloroethylene	U	ND	0.300	1.00	ug/L	1
Toluene	U	ND	0.300	1.00	ug/L	1
Trichloroethylene	U	ND	0.300	1.00	ug/L	1
Trichlorofluoromethane	U	ND	0.300	1.00	ug/L	1
Trichlorotrifluoroethylene	U	ND	1.50	5.00	ug/L	1
Vinyl chloride	U	ND	0.300	1.00	ug/L	1
cis-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
cis-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03-D	Project:	CHAR00712C
Sample ID:	322828013	Client ID:	GEEL003

Volatile Organics

Volatiles by SW846 8260B "As Received"

m,p-Xylenes	U	ND	0.300	2.00	ug/L	1
o-Xylene	U	ND	0.300	1.00	ug/L	1
tert-Butyl methyl ether	U	ND	0.300	1.00	ug/L	1
trans-1,2-Dichloroethylene	U	ND	0.300	1.00	ug/L	1
trans-1,3-Dichloropropylene	U	ND	0.300	1.00	ug/L	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 3510C	SW846 3510C Prep Semivolatiles 8270D	DXF4	04/03/13	0850	1292494
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7470A			
2	SW846 3010A/6010C			
3	SW846 3010A/6010C			
4	SW846 3010A/6010C			
5	SW846 3010A/6010C			
6	SW846 3510C/8270D			
7	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2,4,6-Tribromophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	37.4 ug/L	100	37.4	(23%-130%)
2-Fluorophenol	8270D Semivolatile Analysis by Separatory Funnel "As Received"	21.0 ug/L	100	21.0	(14%-77%)
Phenol-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	14.2 ug/L	100	14.2	(10%-78%)
2-Fluorobiphenyl	8270D Semivolatile Analysis by Separatory Funnel "As Received"	28.5 ug/L	50.0	57.0	(30%-104%)
Nitrobenzene-d5	8270D Semivolatile Analysis by Separatory Funnel "As Received"	32.0 ug/L	50.0	64.0	(34%-125%)
p-Terphenyl-d14	8270D Semivolatile Analysis by Separatory Funnel "As Received"	38.3 ug/L	50.0	76.5	(33%-136%)
1,2-Dichloroethane-d4	Volatiles by SW846 8260B "As Received"	47.9 ug/L	50.0	95.8	(78%-124%)
Bromofluorobenzene	Volatiles by SW846 8260B "As Received"	50.7 ug/L	50.0	101	(80%-120%)
Toluene-d8	Volatiles by SW846 8260B "As Received"	47.8 ug/L	50.0	95.5	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1	Project:	CHAR00712C
Sample ID:	322828014	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 14:20		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		60.1		4.60	ug/kg	1	BCD1	04/04/13	1124	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5620000		7810	ug/kg	1	JWJ	04/08/13	1533	1292640	2
Arsenic	U	ND		574	ug/kg	1					
Barium		29800		115	ug/kg	1					
Beryllium	J	146		115	ug/kg	1					
Cadmium	U	ND		115	ug/kg	1					
Calcium		1040000		9190	ug/kg	1					
Chromium		5920		172	ug/kg	1					
Cobalt	J	568		172	ug/kg	1					
Copper		2120		345	ug/kg	1					
Iron		4120000		9190	ug/kg	1					
Lead		22600		379	ug/kg	1					
Magnesium		384000		9760	ug/kg	1					
Manganese		13100		230	ug/kg	1					
Nickel		962		172	ug/kg	1					
Potassium		319000		7350	ug/kg	1					
Selenium	U	ND		574	ug/kg	1					
Silver	U	ND		115	ug/kg	1					
Sodium		46600		8040	ug/kg	1					
Thallium	U	ND		574	ug/kg	1					
Vanadium		6590		115	ug/kg	1					
Zinc		15100		459	ug/kg	1					
Antimony	J	878		379	ug/kg	1	JWJ	04/10/13	1328	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	116	386	ug/kg	1	JMB3	04/09/13	2246	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	116	386	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	116	386	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	116	386	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	116	386	ug/kg	1					
2,4-Dichlorophenol	U	ND	116	386	ug/kg	1					
2,4-Dimethylphenol	U	ND	116	386	ug/kg	1					
2,4-Dinitrophenol	U	ND	116	773	ug/kg	1					

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 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1	Project:	CHAR00712C
Sample ID:	322828014	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	116	386	ug/kg	1
2,6-Dinitrotoluene	U	ND	116	386	ug/kg	1
2-Chloronaphthalene	U	ND	11.6	38.6	ug/kg	1
2-Chlorophenol	U	ND	116	386	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	116	386	ug/kg	1
2-Methylnaphthalene	U	ND	11.6	38.6	ug/kg	1
2-Nitrophenol	U	ND	116	386	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	116	386	ug/kg	1
4-Bromophenylphenylether	U	ND	116	386	ug/kg	1
4-Chloro-3-methylphenol	U	ND	155	386	ug/kg	1
4-Chloroaniline	U	ND	116	386	ug/kg	1
4-Chlorophenylphenylether	U	ND	116	386	ug/kg	1
4-Nitrophenol	U	ND	116	386	ug/kg	1
Acenaphthene	U	ND	11.6	38.6	ug/kg	1
Acenaphthylene	U	ND	11.6	38.6	ug/kg	1
Acetophenone	U	ND	116	386	ug/kg	1
Anthracene	U	ND	11.6	38.6	ug/kg	1
Atrazine	U	ND	155	386	ug/kg	1
Benzaldehyde	U	ND	116	386	ug/kg	1
Benzo(a)anthracene	U	ND	11.6	38.6	ug/kg	1
Benzo(a)pyrene	U	ND	11.6	38.6	ug/kg	1
Benzo(b)fluoranthene	U	ND	11.6	38.6	ug/kg	1
Benzo(ghi)perylene	U	ND	11.6	38.6	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.6	38.6	ug/kg	1
Butylbenzylphthalate	U	ND	116	386	ug/kg	1
Caprolactam	U	ND	116	386	ug/kg	1
Carbazole	U	ND	11.6	38.6	ug/kg	1
Chrysene	U	ND	11.6	38.6	ug/kg	1
Di-n-butylphthalate	U	ND	116	386	ug/kg	1
Di-n-octylphthalate	U	ND	116	386	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.6	38.6	ug/kg	1
Dibenzofuran	U	ND	116	386	ug/kg	1
Diethylphthalate	U	ND	116	386	ug/kg	1
Dimethylphthalate	U	ND	116	386	ug/kg	1
Diphenylamine	U	ND	116	386	ug/kg	1
Fluoranthene	U	ND	11.6	38.6	ug/kg	1

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Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1	Project:	CHAR00712C
Sample ID:	322828014	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.6	38.6	ug/kg	1
Hexachlorobenzene	U	ND	116	386	ug/kg	1
Hexachlorobutadiene	U	ND	116	386	ug/kg	1
Hexachlorocyclopentadiene	U	ND	116	386	ug/kg	1
Hexachloroethane	U	ND	116	386	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.6	38.6	ug/kg	1
Isophorone	U	ND	116	386	ug/kg	1
N-Nitrosodipropylamine	U	ND	116	386	ug/kg	1
Naphthalene	J	18.9	11.6	38.6	ug/kg	1
Nitrobenzene	U	ND	116	386	ug/kg	1
Pentachlorophenol	U	ND	116	386	ug/kg	1
Phenanthren	U	ND	11.6	38.6	ug/kg	1
Phenol	U	ND	116	386	ug/kg	1
Pyrene	U	ND	11.6	38.6	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	116	386	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	116	386	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	116	386	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	116	386	ug/kg	1
m,p-Cresols	U	ND	116	386	ug/kg	1
m-Nitroaniline	U	ND	116	386	ug/kg	1
o-Cresol	U	ND	116	386	ug/kg	1
o-Nitroaniline	U	ND	127	386	ug/kg	1
p-Nitroaniline	U	ND	116	386	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.246	0.819	ug/kg	1	RXY1	04/11/13	1205	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.246	0.819	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.246	0.819	ug/kg	1					
1,1-Dichloroethane	U	ND	0.246	0.819	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.246	0.819	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.327	0.819	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.246	0.819	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.409	0.819	ug/kg	1					
1,2-Dibromoethane	U	ND	0.246	0.819	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.246	0.819	ug/kg	1					
1,2-Dichloroethane	U	ND	0.246	0.819	ug/kg	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1	Project:	CHAR00712C
Sample ID:	322828014	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.246	0.819	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.246	0.819	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.246	0.819	ug/kg	1
1,4-Dioxane	U	ND	12.3	40.9	ug/kg	1
2-Butanone	U	ND	1.23	4.09	ug/kg	1
2-Hexanone	U	ND	1.23	4.09	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.23	4.09	ug/kg	1
Acetone		44.9	1.23	4.09	ug/kg	1
Benzene		14.3	0.246	0.819	ug/kg	1
Bromochloromethane	U	ND	0.246	0.819	ug/kg	1
Bromodichloromethane	U	ND	0.246	0.819	ug/kg	1
Bromoform	U	ND	0.246	0.819	ug/kg	1
Bromomethane	U	ND	0.246	0.819	ug/kg	1
Carbon disulfide	U	ND	1.23	4.09	ug/kg	1
Carbon tetrachloride	U	ND	0.246	0.819	ug/kg	1
Chlorobenzene	U	ND	0.246	0.819	ug/kg	1
Chloroethane	U	ND	0.246	0.819	ug/kg	1
Chloroform	U	ND	0.246	0.819	ug/kg	1
Chloromethane	U	ND	0.246	0.819	ug/kg	1
Cyclohexane		8.76	0.246	0.819	ug/kg	1
Dibromochloromethane	U	ND	0.246	0.819	ug/kg	1
Dichlorodifluoromethane	U	ND	0.246	0.819	ug/kg	1
Ethylbenzene		17.7	0.246	0.819	ug/kg	1
Isopropylbenzene		3.05	0.246	0.819	ug/kg	1
Methyl acetate	U	ND	1.23	4.09	ug/kg	1
Methylcyclohexane		11.2	0.327	0.819	ug/kg	1
Methylene chloride	U	ND	1.64	4.09	ug/kg	1
Styrene	U	ND	0.246	0.819	ug/kg	1
Tetrachloroethylene	U	ND	0.246	0.819	ug/kg	1
Toluene		1.61	0.246	0.819	ug/kg	1
Trichloroethylene	U	ND	0.246	0.819	ug/kg	1
Trichlorofluoromethane	U	ND	0.246	0.819	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.23	4.09	ug/kg	1
Vinyl chloride	U	ND	0.246	0.819	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.246	0.819	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.246	0.819	ug/kg	1

Certificate of Analysis

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Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1	Project:	CHAR00712C
Sample ID:	322828014	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	7.37	0.246	1.64	ug/kg	1
o-Xylene	1.94	0.246	0.819	ug/kg	1
tert-Butyl methyl ether	U	ND	0.246	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.246	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.246	0.819	ug/kg

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1420	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1000 ug/kg	1930	51.8	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	985 ug/kg	1930	51.0	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1560 ug/kg	1930	80.7	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2730 ug/kg	3860	70.7	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2270 ug/kg	3860	58.7	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2200 ug/kg	3860	57.0	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	36.7 ug/kg	50.0	89.7	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	43.5 ug/kg	50.0	106	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	40.0 ug/kg	50.0	97.8	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1-D	Project:	CHAR00712C
Sample ID:	322828015	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 14:20		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	13.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		49.8		4.16	ug/kg	1	BCD1	04/04/13	1126	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		6510000		7710	ug/kg	1	JWJ	04/08/13	1536	1292640	2
Arsenic	J	1360		567	ug/kg	1					
Barium		29400		113	ug/kg	1					
Beryllium	U	ND		567	ug/kg	1					
Cadmium	U	ND		567	ug/kg	1					
Calcium		2270000		9070	ug/kg	1					
Chromium		10700		170	ug/kg	1					
Cobalt	J	532		567	ug/kg	1					
Copper	J	873		340	ug/kg	1					
Iron		6050000		9070	ug/kg	1					
Lead		15300		374	ug/kg	1					
Magnesium		470000		9630	ug/kg	1					
Manganese		19200		227	ug/kg	1					
Nickel		1040		170	ug/kg	1					
Potassium		401000		7250	ug/kg	1					
Selenium	J	656		3400	ug/kg	1					
Silver	U	ND		113	ug/kg	1					
Sodium		79200		7930	ug/kg	1					
Thallium	U	ND		567	ug/kg	1					
Vanadium		11300		113	ug/kg	1					
Zinc		10200		453	ug/kg	1					
Antimony	J	1020		374	ug/kg	1	JWJ	04/10/13	1331	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	115	385	ug/kg	1	JMB3	04/09/13	2316	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	115	385	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	115	385	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	115	385	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	115	385	ug/kg	1					
2,4-Dichlorophenol	U	ND	115	385	ug/kg	1					
2,4-Dimethylphenol	U	ND	115	385	ug/kg	1					
2,4-Dinitrophenol	U	ND	115	770	ug/kg	1					

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1-D	Project:	CHAR00712C
Sample ID:	322828015	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	115	385	ug/kg	1
2,6-Dinitrotoluene	U	ND	115	385	ug/kg	1
2-Chloronaphthalene	U	ND	11.5	38.5	ug/kg	1
2-Chlorophenol	U	ND	115	385	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	115	385	ug/kg	1
2-Methylnaphthalene	U	ND	11.5	38.5	ug/kg	1
2-Nitrophenol	U	ND	115	385	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	115	385	ug/kg	1
4-Bromophenylphenylether	U	ND	115	385	ug/kg	1
4-Chloro-3-methylphenol	U	ND	154	385	ug/kg	1
4-Chloroaniline	U	ND	115	385	ug/kg	1
4-Chlorophenylphenylether	U	ND	115	385	ug/kg	1
4-Nitrophenol	U	ND	115	385	ug/kg	1
Acenaphthene	U	ND	11.5	38.5	ug/kg	1
Acenaphthylene	U	ND	11.5	38.5	ug/kg	1
Acetophenone	U	ND	115	385	ug/kg	1
Anthracene	U	ND	11.5	38.5	ug/kg	1
Atrazine	U	ND	154	385	ug/kg	1
Benzaldehyde	U	ND	115	385	ug/kg	1
Benzo(a)anthracene	U	ND	11.5	38.5	ug/kg	1
Benzo(a)pyrene	U	ND	11.5	38.5	ug/kg	1
Benzo(b)fluoranthene	U	ND	11.5	38.5	ug/kg	1
Benzo(ghi)perylene	U	ND	11.5	38.5	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.5	38.5	ug/kg	1
Butylbenzylphthalate	U	ND	115	385	ug/kg	1
Caprolactam	U	ND	115	385	ug/kg	1
Carbazole	U	ND	11.5	38.5	ug/kg	1
Chrysene	U	ND	11.5	38.5	ug/kg	1
Di-n-butylphthalate	U	ND	115	385	ug/kg	1
Di-n-octylphthalate	U	ND	115	385	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.5	38.5	ug/kg	1
Dibenzo-furan	U	ND	115	385	ug/kg	1
Diethylphthalate	U	ND	115	385	ug/kg	1
Dimethylphthalate	U	ND	115	385	ug/kg	1
Diphenylamine	U	ND	115	385	ug/kg	1
Fluoranthene	U	ND	11.5	38.5	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1-D	Project:	CHAR00712C
Sample ID:	322828015	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.5	38.5	ug/kg	1
Hexachlorobenzene	U	ND	115	385	ug/kg	1
Hexachlorobutadiene	U	ND	115	385	ug/kg	1
Hexachlorocyclopentadiene	U	ND	115	385	ug/kg	1
Hexachloroethane	U	ND	115	385	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.5	38.5	ug/kg	1
Isophorone	U	ND	115	385	ug/kg	1
N-Nitrosodipropylamine	U	ND	115	385	ug/kg	1
Naphthalene	U	ND	11.5	38.5	ug/kg	1
Nitrobenzene	U	ND	115	385	ug/kg	1
Pentachlorophenol	U	ND	115	385	ug/kg	1
Phenanthrene	U	ND	11.5	38.5	ug/kg	1
Phenol	U	ND	115	385	ug/kg	1
Pyrene	U	ND	11.5	38.5	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	115	385	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	115	385	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	115	385	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	115	385	ug/kg	1
m,p-Cresols	U	ND	115	385	ug/kg	1
m-Nitroaniline	U	ND	115	385	ug/kg	1
o-Cresol	U	ND	115	385	ug/kg	1
o-Nitroaniline	U	ND	127	385	ug/kg	1
p-Nitroaniline	U	ND	115	385	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.245	0.816	ug/kg	1	RXY1	04/11/13	1233	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.245	0.816	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.245	0.816	ug/kg	1					
1,1-Dichloroethane	U	ND	0.245	0.816	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.245	0.816	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.326	0.816	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.245	0.816	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.408	0.816	ug/kg	1					
1,2-Dibromoethane	U	ND	0.245	0.816	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.245	0.816	ug/kg	1					
1,2-Dichloroethane	U	ND	0.245	0.816	ug/kg	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1-D	Project:	CHAR00712C
Sample ID:	322828015	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.245	0.816	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.245	0.816	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.245	0.816	ug/kg	1
1,4-Dioxane	U	ND	12.2	40.8	ug/kg	1
2-Butanone	U	ND	1.22	4.08	ug/kg	1
2-Hexanone	U	ND	1.22	4.08	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.22	4.08	ug/kg	1
Acetone		19.0	1.22	4.08	ug/kg	1
Benzene		7.35	0.245	0.816	ug/kg	1
Bromochloromethane	U	ND	0.245	0.816	ug/kg	1
Bromodichloromethane	U	ND	0.245	0.816	ug/kg	1
Bromoform	U	ND	0.245	0.816	ug/kg	1
Bromomethane	U	ND	0.245	0.816	ug/kg	1
Carbon disulfide	U	ND	1.22	4.08	ug/kg	1
Carbon tetrachloride	U	ND	0.245	0.816	ug/kg	1
Chlorobenzene	U	ND	0.245	0.816	ug/kg	1
Chloroethane	U	ND	0.245	0.816	ug/kg	1
Chloroform	U	ND	0.245	0.816	ug/kg	1
Chloromethane	U	ND	0.245	0.816	ug/kg	1
Cyclohexane		4.92	0.245	0.816	ug/kg	1
Dibromochloromethane	U	ND	0.245	0.816	ug/kg	1
Dichlorodifluoromethane	U	ND	0.245	0.816	ug/kg	1
Ethylbenzene		9.69	0.245	0.816	ug/kg	1
Isopropylbenzene		1.60	0.245	0.816	ug/kg	1
Methyl acetate	U	ND	1.22	4.08	ug/kg	1
Methylcyclohexane		7.10	0.326	0.816	ug/kg	1
Methylene chloride	U	ND	1.63	4.08	ug/kg	1
Styrene	U	ND	0.245	0.816	ug/kg	1
Tetrachloroethylene	U	ND	0.245	0.816	ug/kg	1
Toluene		0.816	0.245	0.816	ug/kg	1
Trichloroethylene	U	ND	0.245	0.816	ug/kg	1
Trichlorofluoromethane	U	ND	0.245	0.816	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.22	4.08	ug/kg	1
Vinyl chloride	U	ND	0.245	0.816	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.245	0.816	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.245	0.816	ug/kg	1

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Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-0-1-D	Project:	CHAR00712C
Sample ID:	322828015	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	4.06	0.245	1.63	ug/kg	1
o-Xylene	1.05	0.245	0.816	ug/kg	1
tert-Butyl methyl ether	U	ND	0.245	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.245	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.245	0.816	ug/kg 1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1420	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	982 ug/kg	1920	51.1	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	980 ug/kg	1920	51.0	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1620 ug/kg	1920	84.4	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2720 ug/kg	3850	70.6	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2250 ug/kg	3850	58.5	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2180 ug/kg	3850	56.8	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	38.1 ug/kg	50.0	93.5	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	42.3 ug/kg	50.0	104	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	39.1 ug/kg	50.0	96.0	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-3-4	Project:	CHAR00712C
Sample ID:	322828016	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 14:35		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	15.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		61.1		4.39	ug/kg	1	BCD1	04/04/13	1128	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		4660000		7790	ug/kg	1	JWJ	04/08/13	1539	1292640	2
Arsenic	J	1330		573	ug/kg	1					
Barium		72900		115	ug/kg	1					
Beryllium	J	175		115	ug/kg	1					
Cadmium	U	ND		115	ug/kg	1					
Calcium		3480000		9160	ug/kg	1					
Chromium		7980		172	ug/kg	1					
Cobalt		851		172	ug/kg	1					
Copper		10100		344	ug/kg	1					
Iron		4170000		9160	ug/kg	1					
Lead		99000		378	ug/kg	1					
Magnesium		509000		9740	ug/kg	1					
Manganese		22900		229	ug/kg	1					
Nickel		1450		172	ug/kg	1					
Potassium		334000		7330	ug/kg	1					
Selenium	J	587		573	ug/kg	1					
Silver	U	ND		115	ug/kg	1					
Sodium		47800		8020	ug/kg	1					
Thallium	J	692		573	ug/kg	1					
Vanadium		6190		115	ug/kg	1					
Zinc		83000		458	ug/kg	1					
Antimony	J	403		378	ug/kg	1	JWJ	04/10/13	1333	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl		1110		118	ug/kg	1	JMB3	04/10/13	0442	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND		118	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND		118	ug/kg	1					
2,4,5-Trichlorophenol	U	ND		118	ug/kg	1					
2,4,6-Trichlorophenol	U	ND		118	ug/kg	1					
2,4-Dichlorophenol	U	ND		118	ug/kg	1					
2,4-Dimethylphenol	U	ND		118	ug/kg	1					
2,4-Dinitrophenol	U	ND		118	ug/kg	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-3-4	Project:	CHAR00712C
Sample ID:	322828016	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	118	394	ug/kg	1
2,6-Dinitrotoluene	U	ND	118	394	ug/kg	1
2-Chloronaphthalene	U	ND	11.8	39.4	ug/kg	1
2-Chlorophenol	U	ND	118	394	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	118	394	ug/kg	1
2-Nitrophenol	U	ND	118	394	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	118	394	ug/kg	1
4-Bromophenylphenylether	U	ND	118	394	ug/kg	1
4-Chloro-3-methylphenol	U	ND	158	394	ug/kg	1
4-Chloroaniline	U	ND	118	394	ug/kg	1
4-Chlorophenylphenylether	U	ND	118	394	ug/kg	1
4-Nitrophenol	U	ND	118	394	ug/kg	1
Acenaphthene	U	ND	11.8	39.4	ug/kg	1
Acenaphthylene	U	ND	11.8	39.4	ug/kg	1
Acetophenone	U	ND	118	394	ug/kg	1
Anthracene	U	ND	11.8	39.4	ug/kg	1
Atrazine	U	ND	158	394	ug/kg	1
Benzaldehyde	U	ND	118	394	ug/kg	1
Benzo(a)anthracene	J	37.5	11.8	39.4	ug/kg	1
Benzo(a)pyrene	J	26.8	11.8	39.4	ug/kg	1
Benzo(b)fluoranthene		45.8	11.8	39.4	ug/kg	1
Benzo(ghi)perylene	J	28.0	11.8	39.4	ug/kg	1
Benzo(k)fluoranthene	J	13.0	11.8	39.4	ug/kg	1
Butylbenzylphthalate	U	ND	118	394	ug/kg	1
Caprolactam	U	ND	118	394	ug/kg	1
Carbazole	U	ND	11.8	39.4	ug/kg	1
Chrysene	J	31.9	11.8	39.4	ug/kg	1
Di-n-butylphthalate	U	ND	118	394	ug/kg	1
Di-n-octylphthalate	U	ND	118	394	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.8	39.4	ug/kg	1
Dibenzofuran	U	ND	118	394	ug/kg	1
Diethylphthalate	U	ND	118	394	ug/kg	1
Dimethylphthalate	U	ND	118	394	ug/kg	1
Diphenylamine	U	ND	118	394	ug/kg	1
Fluoranthene		117	11.8	39.4	ug/kg	1
Fluorene		861	11.8	39.4	ug/kg	1

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Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-3-4	Project:	CHAR00712C
Sample ID:	322828016	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Hexachlorobenzene	U	ND	118	394	ug/kg	1
Hexachlorobutadiene	U	ND	118	394	ug/kg	1
Hexachlorocyclopentadiene	U	ND	118	394	ug/kg	1
Hexachloroethane	U	ND	118	394	ug/kg	1
Indeno(1,2,3-cd)pyrene	J	25.6	11.8	39.4	ug/kg	1
Isophorone	U	ND	118	394	ug/kg	1
N-Nitrosodipropylamine	U	ND	118	394	ug/kg	1
Naphthalene		3870	11.8	39.4	ug/kg	1
Nitrobenzene	U	ND	118	394	ug/kg	1
Pentachlorophenol	U	ND	118	394	ug/kg	1
Phenanthrene		1770	11.8	39.4	ug/kg	1
Phenol	U	ND	118	394	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	118	394	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	118	394	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	118	394	ug/kg	1
bis(2-Ethylhexyl)phthalate		396	118	394	ug/kg	1
m,p-Cresols	U	ND	118	394	ug/kg	1
m-Nitroaniline	U	ND	118	394	ug/kg	1
o-Cresol	U	ND	118	394	ug/kg	1
o-Nitroaniline	U	ND	130	394	ug/kg	1
p-Nitroaniline	U	ND	118	394	ug/kg	1
2-Methylnaphthalene		12500	118	394	ug/kg	10 JMB3 04/10/13 1311 1293524
Pyrene		124	11.8	39.4	ug/kg	1 JMB3 04/10/13 1510 1293524
Volatile Organics						
Volatiles "Dry Weight Corrected"						
1,1,1-Trichloroethane	U	ND	26.5	88.4	ug/kg	50 RXY1 04/12/13 1644 1294273
1,1,2,2-Tetrachloroethane	U	ND	26.5	88.4	ug/kg	50
1,1,2-Trichloroethane	U	ND	26.5	88.4	ug/kg	50
1,1-Dichloroethane	U	ND	26.5	88.4	ug/kg	50
1,1-Dichloroethylene	U	ND	26.5	88.4	ug/kg	50
1,2,3-Trichlorobenzene	U	ND	35.4	88.4	ug/kg	50
1,2,4-Trichlorobenzene	U	ND	26.5	88.4	ug/kg	50
1,2-Dibromo-3-chloropropane	U	ND	44.2	88.4	ug/kg	50
1,2-Dibromoethane	U	ND	26.5	88.4	ug/kg	50
1,2-Dichlorobenzene	U	ND	26.5	88.4	ug/kg	50
1,2-Dichloroethane	U	ND	26.5	88.4	ug/kg	50

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 Project: Mr. Adam MacConnell
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Client Sample ID:	PC-SS-03-3-4	Project:	CHAR00712C
Sample ID:	322828016	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	26.5	88.4	ug/kg	50
1,3-Dichlorobenzene	U	ND	26.5	88.4	ug/kg	50
1,4-Dichlorobenzene	U	ND	26.5	88.4	ug/kg	50
1,4-Dioxane	U	ND	1330	4420	ug/kg	50
2-Butanone	U	ND	133	442	ug/kg	50
2-Hexanone	U	ND	133	442	ug/kg	50
4-Methyl-2-pentanone	U	ND	133	442	ug/kg	50
Acetone	U	ND	133	442	ug/kg	50
Benzene	J	83.1	26.5	88.4	ug/kg	50
Bromochloromethane	U	ND	26.5	88.4	ug/kg	50
Bromodichloromethane	U	ND	26.5	88.4	ug/kg	50
Bromoform	U	ND	26.5	88.4	ug/kg	50
Bromomethane	U	ND	26.5	88.4	ug/kg	50
Carbon disulfide	U	ND	133	442	ug/kg	50
Carbon tetrachloride	U	ND	26.5	88.4	ug/kg	50
Chlorobenzene	U	ND	26.5	88.4	ug/kg	50
Chloroethane	U	ND	26.5	88.4	ug/kg	50
Chloroform	U	ND	26.5	88.4	ug/kg	50
Chloromethane	U	ND	26.5	88.4	ug/kg	50
Cyclohexane	U	ND	26.5	88.4	ug/kg	50
Dibromochloromethane	U	ND	26.5	88.4	ug/kg	50
Dichlorodifluoromethane	U	ND	26.5	88.4	ug/kg	50
Ethylbenzene		541	26.5	88.4	ug/kg	50
Isopropylbenzene		162	26.5	88.4	ug/kg	50
Methyl acetate	U	ND	133	442	ug/kg	50
Methylcyclohexane		307	35.4	88.4	ug/kg	50
Methylene chloride	U	ND	177	442	ug/kg	50
Styrene	U	ND	26.5	88.4	ug/kg	50
Tetrachloroethylene	U	ND	26.5	88.4	ug/kg	50
Toluene	U	ND	26.5	88.4	ug/kg	50
Trichloroethylene	U	ND	26.5	88.4	ug/kg	50
Trichlorofluoromethane	U	ND	26.5	88.4	ug/kg	50
Trichlorotrifluoroethane	U	ND	133	442	ug/kg	50
Vinyl chloride	U	ND	26.5	88.4	ug/kg	50
cis-1,2-Dichloroethylene	U	ND	26.5	88.4	ug/kg	50
cis-1,3-Dichloropropylene	U	ND	26.5	88.4	ug/kg	50

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Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-03-3-4	Project:	CHAR00712C
Sample ID:	322828016	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	J	92.8	26.5	177	ug/kg	50
o-Xylene	U	ND	26.5	88.4	ug/kg	50
tert-Butyl methyl ether	U	ND	26.5	88.4	ug/kg	50
trans-1,2-Dichloroethylene	U	ND	26.5	88.4	ug/kg	50
trans-1,3-Dichloropropylene	U	ND	26.5	88.4	ug/kg	50

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1435	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 3550C/8270D			
6	SW846 3550C/8270D			
7	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1050 ug/kg	1970	53.3	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1480 ug/kg	1970	74.8	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1320 ug/kg	1970	66.9	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2850 ug/kg	3940	72.4	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2190 ug/kg	3940	55.6	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2200 ug/kg	3940	55.8	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	3650 ug/kg	50.0	82.6	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	4670 ug/kg	50.0	106	(80%-120%)

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Contact: Charleston, South Carolina 29417
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Project: Phase II ESA, Post and Courier

Client Sample ID: PC-SS-03-3-4 Project: CHAR00712C
Sample ID: 322828016 Client ID: GEEL003

Toluene-d8	Volatiles "Dry Weight Corrected"	4300 ug/kg	50.0	97.3	(80%-120%)
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03	Project:	CHAR00712C
Sample ID:	322828017	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 14:55		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0927	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum	U	ND	68.0	200	ug/L	1	LS	04/04/13	1754	1292561	2
Barium		11.9	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	U	ND	1.00	5.00	ug/L	1					
Calcium		94200	50.0	200	ug/L	1					
Chromium	U	ND	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron		7860	30.0	100	ug/L	1					
Magnesium		20900	110	300	ug/L	1					
Manganese		66.8	2.00	10.0	ug/L	1					
Nickel	U	ND	1.50	5.00	ug/L	1					
Potassium		23100	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		49000	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium	J	1.27	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1239	1292561	3
Arsenic	U	ND	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1535	1292561	4
Selenium	U	ND	6.00	30.0	ug/L	1	LS	04/15/13	1457	1292561	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-03 Project: CHAR00712C
Sample ID: 322828017 Client ID: GEEL003

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3010A/6010C	
3	SW846 3010A/6010C	
4	SW846 3010A/6010C	
5	SW846 3010A/6010C	

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-MW-03-D	Project:	CHAR00712C
Sample ID:	322828018	Client ID:	GEEL003
Matrix:	Ground Water		
Collect Date:	01-APR-13 14:55		
Receive Date:	02-APR-13		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
7470 Cold Vapor Hg Liquid "As Received"											
Mercury	U	ND	0.067	0.200	ug/L	1	BCD1	04/05/13	0929	1292819	1
Metals Analysis-ICP											
SW846 3010A/6010C Liquid "As Received"											
Aluminum	U	ND	68.0	200	ug/L	1	LS	04/04/13	1756	1292561	2
Barium		11.9	1.00	5.00	ug/L	1					
Beryllium	U	ND	1.00	5.00	ug/L	1					
Cadmium	J	1.07	1.00	5.00	ug/L	1					
Calcium		96700	50.0	200	ug/L	1					
Chromium	U	ND	1.00	5.00	ug/L	1					
Cobalt	U	ND	1.00	5.00	ug/L	1					
Copper	U	ND	3.00	10.0	ug/L	1					
Iron		8110	30.0	100	ug/L	1					
Magnesium		21700	110	300	ug/L	1					
Manganese		68.2	2.00	10.0	ug/L	1					
Nickel	J	1.58	1.50	5.00	ug/L	1					
Potassium		23900	50.0	150	ug/L	1					
Silver	U	ND	1.00	5.00	ug/L	1					
Sodium		50300	100	300	ug/L	1					
Thallium	U	ND	5.00	20.0	ug/L	1					
Vanadium	J	1.17	1.00	5.00	ug/L	1					
Zinc	U	ND	3.30	10.0	ug/L	1					
Antimony	U	ND	3.50	10.0	ug/L	1	LS	04/05/13	1241	1292561	3
Arsenic	J	13.5	5.00	30.0	ug/L	1					
Lead	U	ND	3.30	10.0	ug/L	1	LS	04/09/13	1537	1292561	4
Selenium	J	9.39	6.00	30.0	ug/L	1	LS	04/15/13	1459	1292561	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	ICP-TRACE SW846 3010A	AXG2	04/04/13	0730	1292560
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	04/04/13	1559	1292818

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID: PC-MW-03-D
Sample ID: 322828018

Project: CHAR00712C
Client ID: GEEL003

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3010A/6010C	
3	SW846 3010A/6010C	
4	SW846 3010A/6010C	
5	SW846 3010A/6010C	

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Report Date: April 16, 2013

Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-0-1	Project:	CHAR00712C
Sample ID:	322828019	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 15:40		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	8.13%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		605		4.36	13.0	ug/kg	1	BCD1	04/04/13	1129	1292604
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5270000		7260	21300	ug/kg	1	JWJ	04/08/13	1541	1292640
Arsenic	J	1490		534	3200	ug/kg	1				
Barium		49800		107	534	ug/kg	1				
Beryllium	J	177		107	534	ug/kg	1				
Cadmium	U	ND		107	534	ug/kg	1				
Calcium		4350000		8540	26700	ug/kg	1				
Chromium		7490		160	534	ug/kg	1				
Cobalt		1160		160	534	ug/kg	1				
Copper		18500		320	1070	ug/kg	1				
Iron		4300000		8540	26700	ug/kg	1				
Lead		166000		352	1070	ug/kg	1				
Magnesium		454000		9070	32000	ug/kg	1				
Manganese		46100		213	1070	ug/kg	1				
Nickel		2260		160	534	ug/kg	1				
Potassium		213000		6830	26700	ug/kg	1				
Selenium	U	ND		534	3200	ug/kg	1				
Silver	J	205		107	534	ug/kg	1				
Sodium		42100		7470	26700	ug/kg	1				
Thallium	U	ND		534	2130	ug/kg	1				
Vanadium		5960		107	534	ug/kg	1				
Zinc		46300		427	1070	ug/kg	1				
Antimony	J	800		352	1070	ug/kg	1	JWJ	04/10/13	1336	1292640
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		109	362	ug/kg	1	JMB3	04/10/13	1341	1293524
1,2,4,5-Tetrachlorobenzene	U	ND		109	362	ug/kg	1				
2,3,4,6-Tetrachlorophenol	U	ND		109	362	ug/kg	1				
2,4,5-Trichlorophenol	U	ND		109	362	ug/kg	1				
2,4,6-Trichlorophenol	U	ND		109	362	ug/kg	1				
2,4-Dichlorophenol	U	ND		109	362	ug/kg	1				
2,4-Dimethylphenol	U	ND		109	362	ug/kg	1				
2,4-Dinitrophenol	U	ND		109	724	ug/kg	1				

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 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-0-1	Project:	CHAR00712C
Sample ID:	322828019	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	109	362	ug/kg	1
2,6-Dinitrotoluene	U	ND	109	362	ug/kg	1
2-Chloronaphthalene	U	ND	10.9	36.2	ug/kg	1
2-Chlorophenol	U	ND	109	362	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	109	362	ug/kg	1
2-Methylnaphthalene	U	ND	10.9	36.2	ug/kg	1
2-Nitrophenol	U	ND	109	362	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	109	362	ug/kg	1
4-Bromophenylphenylether	U	ND	109	362	ug/kg	1
4-Chloro-3-methylphenol	U	ND	145	362	ug/kg	1
4-Chloroaniline	U	ND	109	362	ug/kg	1
4-Chlorophenylphenylether	U	ND	109	362	ug/kg	1
4-Nitrophenol	U	ND	109	362	ug/kg	1
Acenaphthene	U	ND	10.9	36.2	ug/kg	1
Acenaphthylene	U	ND	10.9	36.2	ug/kg	1
Acetophenone	U	ND	109	362	ug/kg	1
Anthracene	U	ND	10.9	36.2	ug/kg	1
Atrazine	U	ND	145	362	ug/kg	1
Benzaldehyde	U	ND	109	362	ug/kg	1
Benzo(a)anthracene		61.9	10.9	36.2	ug/kg	1
Benzo(a)pyrene		85.8	10.9	36.2	ug/kg	1
Benzo(b)fluoranthene		142	10.9	36.2	ug/kg	1
Benzo(ghi)perylene		82.2	10.9	36.2	ug/kg	1
Benzo(k)fluoranthene		50.0	10.9	36.2	ug/kg	1
Butylbenzylphthalate	U	ND	109	362	ug/kg	1
Caprolactam	U	ND	109	362	ug/kg	1
Carbazole	U	ND	10.9	36.2	ug/kg	1
Chrysene		87.6	10.9	36.2	ug/kg	1
Di-n-butylphthalate	U	ND	109	362	ug/kg	1
Di-n-octylphthalate	U	ND	109	362	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	10.9	36.2	ug/kg	1
Dibenzo-furan	U	ND	109	362	ug/kg	1
Diethylphthalate	U	ND	109	362	ug/kg	1
Dimethylphthalate	U	ND	109	362	ug/kg	1
Diphenylamine	U	ND	109	362	ug/kg	1
Fluoranthene		147	10.9	36.2	ug/kg	1

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Client Sample ID:	PC-SS-04-0-1	Project:	CHAR00712C
Sample ID:	322828019	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	10.9	36.2	ug/kg	1
Hexachlorobenzene	U	ND	109	362	ug/kg	1
Hexachlorobutadiene	U	ND	109	362	ug/kg	1
Hexachlorocyclopentadiene	U	ND	109	362	ug/kg	1
Hexachloroethane	U	ND	109	362	ug/kg	1
Indeno(1,2,3-cd)pyrene		84.7	10.9	36.2	ug/kg	1
Isophorone	U	ND	109	362	ug/kg	1
N-Nitrosodipropylamine	U	ND	109	362	ug/kg	1
Naphthalene	U	ND	10.9	36.2	ug/kg	1
Nitrobenzene	U	ND	109	362	ug/kg	1
Pentachlorophenol	U	ND	109	362	ug/kg	1
Phenanthrene	J	29.0	10.9	36.2	ug/kg	1
Phenol	U	ND	109	362	ug/kg	1
Pyrene		144	10.9	36.2	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	109	362	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	109	362	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	109	362	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	109	362	ug/kg	1
m,p-Cresols	U	ND	109	362	ug/kg	1
m-Nitroaniline	U	ND	109	362	ug/kg	1
o-Cresol	U	ND	109	362	ug/kg	1
o-Nitroaniline	U	ND	119	362	ug/kg	1
p-Nitroaniline	U	ND	109	362	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.272	0.907	ug/kg	1	RXY1	04/12/13	1210	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.272	0.907	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.272	0.907	ug/kg	1					
1,1-Dichloroethane	U	ND	0.272	0.907	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.272	0.907	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.363	0.907	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.272	0.907	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.454	0.907	ug/kg	1					
1,2-Dibromoethane	U	ND	0.272	0.907	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.272	0.907	ug/kg	1					
1,2-Dichloroethane	U	ND	0.272	0.907	ug/kg	1					

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 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-0-1	Project:	CHAR00712C
Sample ID:	322828019	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.272	0.907	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.272	0.907	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.272	0.907	ug/kg	1
1,4-Dioxane	U	ND	13.6	45.4	ug/kg	1
2-Butanone	U	ND	1.36	4.54	ug/kg	1
2-Hexanone	U	ND	1.36	4.54	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.36	4.54	ug/kg	1
Acetone	U	ND	1.36	4.54	ug/kg	1
Benzene	U	ND	0.272	0.907	ug/kg	1
Bromochloromethane	U	ND	0.272	0.907	ug/kg	1
Bromodichloromethane	U	ND	0.272	0.907	ug/kg	1
Bromoform	U	ND	0.272	0.907	ug/kg	1
Bromomethane	U	ND	0.272	0.907	ug/kg	1
Carbon disulfide	U	ND	1.36	4.54	ug/kg	1
Carbon tetrachloride	U	ND	0.272	0.907	ug/kg	1
Chlorobenzene	U	ND	0.272	0.907	ug/kg	1
Chloroethane	U	ND	0.272	0.907	ug/kg	1
Chloroform	U	ND	0.272	0.907	ug/kg	1
Chloromethane	U	ND	0.272	0.907	ug/kg	1
Cyclohexane	U	ND	0.272	0.907	ug/kg	1
Dibromochloromethane	U	ND	0.272	0.907	ug/kg	1
Dichlorodifluoromethane	U	ND	0.272	0.907	ug/kg	1
Ethylbenzene	U	ND	0.272	0.907	ug/kg	1
Isopropylbenzene	U	ND	0.272	0.907	ug/kg	1
Methyl acetate	U	ND	1.36	4.54	ug/kg	1
Methylcyclohexane	U	ND	0.363	0.907	ug/kg	1
Methylene chloride	U	ND	1.81	4.54	ug/kg	1
Styrene	U	ND	0.272	0.907	ug/kg	1
Tetrachloroethylene	U	ND	0.272	0.907	ug/kg	1
Toluene	U	ND	0.272	0.907	ug/kg	1
Trichloroethylene	U	ND	0.272	0.907	ug/kg	1
Trichlorofluoromethane	U	ND	0.272	0.907	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.36	4.54	ug/kg	1
Vinyl chloride	U	ND	0.272	0.907	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.272	0.907	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.272	0.907	ug/kg	1

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-0-1	Project:	CHAR00712C
Sample ID:	322828019	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.272	1.81	ug/kg	1
o-Xylene	U	ND	0.272	0.907	ug/kg	1
tert-Butyl methyl ether	U	ND	0.272	0.907	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.272	0.907	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.272	0.907	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1540	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7471B		
2	SW846 3050B/6010C		
3	SW846 3050B/6010C		
4	SW846 3550C/8270D		
5	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1040 ug/kg	1810	57.2	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1010 ug/kg	1810	55.6	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1670 ug/kg	1810	92.1	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	3130 ug/kg	3620	86.4	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2190 ug/kg	3620	60.5	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2120 ug/kg	3620	58.5	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	42.0 ug/kg	50.0	92.6	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	46.4 ug/kg	50.0	102	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	44.1 ug/kg	50.0	97.3	(80%-120%)

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Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-4-5	Project:	CHAR00712C
Sample ID:	322828020	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 15:50		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		136		4.45	13.3		ug/kg		1	BCD1	04/04/13
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5100000		7110	20900		ug/kg		1	JWJ	04/08/13
Arsenic	U	ND		523	3140		ug/kg		1		
Barium		34400		105	523		ug/kg		1		
Beryllium	J	170		105	523		ug/kg		1		
Cadmium	U	ND		105	523		ug/kg		1		
Calcium		1910000		8360	26100		ug/kg		1		
Chromium		6550		157	523		ug/kg		1		
Cobalt		594		157	523		ug/kg		1		
Copper		6940		314	1050		ug/kg		1		
Iron		3430000		8360	26100		ug/kg		1		
Lead		57600		345	1050		ug/kg		1		
Magnesium		410000		8890	31400		ug/kg		1		
Manganese		44300		209	1050		ug/kg		1		
Nickel		1340		157	523		ug/kg		1		
Potassium		221000		6690	26100		ug/kg		1		
Selenium	U	ND		523	3140		ug/kg		1		
Silver	J	175		105	523		ug/kg		1		
Sodium		29900		7320	26100		ug/kg		1		
Thallium	U	ND		523	2090		ug/kg		1		
Vanadium		4860		105	523		ug/kg		1		
Zinc		23700		418	1050		ug/kg		1		
Antimony	J	429		345	1050		ug/kg		1	JWJ	04/10/13
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		113	375		ug/kg		1	JMB3	04/10/13
1,2,4,5-Tetrachlorobenzene	U	ND		113	375		ug/kg		1		
2,3,4,6-Tetrachlorophenol	U	ND		113	375		ug/kg		1		
2,4,5-Trichlorophenol	U	ND		113	375		ug/kg		1		
2,4,6-Trichlorophenol	U	ND		113	375		ug/kg		1		
2,4-Dichlorophenol	U	ND		113	375		ug/kg		1		
2,4-Dimethylphenol	U	ND		113	375		ug/kg		1		
2,4-Dinitrophenol	U	ND		113	751		ug/kg		1		

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-4-5	Project:	CHAR00712C
Sample ID:	322828020	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	113	375	ug/kg	1
2,6-Dinitrotoluene	U	ND	113	375	ug/kg	1
2-Chloronaphthalene	U	ND	11.3	37.5	ug/kg	1
2-Chlorophenol	U	ND	113	375	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	113	375	ug/kg	1
2-Methylnaphthalene	J	14.3	11.3	37.5	ug/kg	1
2-Nitrophenol	U	ND	113	375	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	113	375	ug/kg	1
4-Bromophenylphenylether	U	ND	113	375	ug/kg	1
4-Chloro-3-methylphenol	U	ND	150	375	ug/kg	1
4-Chloroaniline	U	ND	113	375	ug/kg	1
4-Chlorophenylphenylether	U	ND	113	375	ug/kg	1
4-Nitrophenol	U	ND	113	375	ug/kg	1
Acenaphthene	U	ND	11.3	37.5	ug/kg	1
Acenaphthylene	U	ND	11.3	37.5	ug/kg	1
Acetophenone	U	ND	113	375	ug/kg	1
Anthracene	U	ND	11.3	37.5	ug/kg	1
Atrazine	U	ND	150	375	ug/kg	1
Benzaldehyde	U	ND	113	375	ug/kg	1
Benzo(a)anthracene	U	ND	11.3	37.5	ug/kg	1
Benzo(a)pyrene	U	ND	11.3	37.5	ug/kg	1
Benzo(b)fluoranthene	U	ND	11.3	37.5	ug/kg	1
Benzo(ghi)perylene	J	17.6	11.3	37.5	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.3	37.5	ug/kg	1
Butylbenzylphthalate	U	ND	113	375	ug/kg	1
Caprolactam	U	ND	113	375	ug/kg	1
Carbazole	U	ND	11.3	37.5	ug/kg	1
Chrysene	U	ND	11.3	37.5	ug/kg	1
Di-n-butylphthalate	U	ND	113	375	ug/kg	1
Di-n-octylphthalate	U	ND	113	375	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.3	37.5	ug/kg	1
Dibenzo-furan	U	ND	113	375	ug/kg	1
Diethylphthalate	U	ND	113	375	ug/kg	1
Dimethylphthalate	U	ND	113	375	ug/kg	1
Diphenylamine	U	ND	113	375	ug/kg	1
Fluoranthene	U	ND	11.3	37.5	ug/kg	1

Certificate of Analysis

Report Date: April 16, 2013

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Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-4-5	Project:	CHAR00712C
Sample ID:	322828020	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.3	37.5	ug/kg	1
Hexachlorobenzene	U	ND	113	375	ug/kg	1
Hexachlorobutadiene	U	ND	113	375	ug/kg	1
Hexachlorocyclopentadiene	U	ND	113	375	ug/kg	1
Hexachloroethane	U	ND	113	375	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.3	37.5	ug/kg	1
Isophorone	U	ND	113	375	ug/kg	1
N-Nitrosodipropylamine	U	ND	113	375	ug/kg	1
Naphthalene	U	ND	11.3	37.5	ug/kg	1
Nitrobenzene	U	ND	113	375	ug/kg	1
Pentachlorophenol	U	ND	113	375	ug/kg	1
Phenanthrene	U	ND	11.3	37.5	ug/kg	1
Phenol	U	ND	113	375	ug/kg	1
Pyrene	U	ND	11.3	37.5	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	113	375	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	113	375	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	113	375	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	113	375	ug/kg	1
m,p-Cresols	U	ND	113	375	ug/kg	1
m-Nitroaniline	U	ND	113	375	ug/kg	1
o-Cresol	U	ND	113	375	ug/kg	1
o-Nitroaniline	U	ND	124	375	ug/kg	1
p-Nitroaniline	U	ND	113	375	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	25.6	85.4	ug/kg	50	RXY1	04/12/13	1549	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	25.6	85.4	ug/kg	50					
1,1,2-Trichloroethane	U	ND	25.6	85.4	ug/kg	50					
1,1-Dichloroethane	U	ND	25.6	85.4	ug/kg	50					
1,1-Dichloroethylene	U	ND	25.6	85.4	ug/kg	50					
1,2,3-Trichlorobenzene	U	ND	34.2	85.4	ug/kg	50					
1,2,4-Trichlorobenzene	U	ND	25.6	85.4	ug/kg	50					
1,2-Dibromo-3-chloropropane	U	ND	42.7	85.4	ug/kg	50					
1,2-Dibromoethane	U	ND	25.6	85.4	ug/kg	50					
1,2-Dichlorobenzene	U	ND	25.6	85.4	ug/kg	50					
1,2-Dichloroethane	U	ND	25.6	85.4	ug/kg	50					

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-4-5	Project:	CHAR00712C
Sample ID:	322828020	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	25.6	85.4	ug/kg	50
1,3-Dichlorobenzene	U	ND	25.6	85.4	ug/kg	50
1,4-Dichlorobenzene	U	ND	25.6	85.4	ug/kg	50
1,4-Dioxane	U	ND	1280	4270	ug/kg	50
2-Butanone	U	ND	128	427	ug/kg	50
2-Hexanone	U	ND	128	427	ug/kg	50
4-Methyl-2-pentanone	U	ND	128	427	ug/kg	50
Acetone	U	ND	128	427	ug/kg	50
Benzene	U	ND	25.6	85.4	ug/kg	50
Bromochloromethane	U	ND	25.6	85.4	ug/kg	50
Bromodichloromethane	U	ND	25.6	85.4	ug/kg	50
Bromoform	U	ND	25.6	85.4	ug/kg	50
Bromomethane	U	ND	25.6	85.4	ug/kg	50
Carbon disulfide	U	ND	128	427	ug/kg	50
Carbon tetrachloride	U	ND	25.6	85.4	ug/kg	50
Chlorobenzene	U	ND	25.6	85.4	ug/kg	50
Chloroethane	U	ND	25.6	85.4	ug/kg	50
Chloroform	U	ND	25.6	85.4	ug/kg	50
Chloromethane	U	ND	25.6	85.4	ug/kg	50
Cyclohexane		641	25.6	85.4	ug/kg	50
Dibromochloromethane	U	ND	25.6	85.4	ug/kg	50
Dichlorodifluoromethane	U	ND	25.6	85.4	ug/kg	50
Ethylbenzene		176	25.6	85.4	ug/kg	50
Isopropylbenzene		161	25.6	85.4	ug/kg	50
Methyl acetate	J	152	128	427	ug/kg	50
Methylcyclohexane		859	34.2	85.4	ug/kg	50
Methylene chloride	U	ND	171	427	ug/kg	50
Styrene	U	ND	25.6	85.4	ug/kg	50
Tetrachloroethylene	U	ND	25.6	85.4	ug/kg	50
Toluene	J	55.5	25.6	85.4	ug/kg	50
Trichloroethylene	U	ND	25.6	85.4	ug/kg	50
Trichlorofluoromethane	U	ND	25.6	85.4	ug/kg	50
Trichlorotrifluoroethylene	U	ND	128	427	ug/kg	50
Vinyl chloride	U	ND	25.6	85.4	ug/kg	50
cis-1,2-Dichloroethylene	U	ND	25.6	85.4	ug/kg	50
cis-1,3-Dichloropropylene	U	ND	25.6	85.4	ug/kg	50

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-04-4-5	Project:	CHAR00712C
Sample ID:	322828020	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	J	170	25.6	171	ug/kg	50
o-Xylene	J	48.7	25.6	85.4	ug/kg	50
tert-Butyl methyl ether	U	ND	25.6	85.4	ug/kg	50
trans-1,2-Dichloroethylene	U	ND	25.6	85.4	ug/kg	50
trans-1,3-Dichloropropylene	U	ND	25.6	85.4	ug/kg	50

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1550	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7471B		
2	SW846 3050B/6010C		
3	SW846 3050B/6010C		
4	SW846 3550C/8270D		
5	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1130 ug/kg	1880	60.3	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1080 ug/kg	1880	57.8	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1720 ug/kg	1880	91.4	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2940 ug/kg	3750	78.4	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2410 ug/kg	3750	64.2	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2460 ug/kg	3750	65.5	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	3730 ug/kg	50.0	87.3	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	4920 ug/kg	50.0	115	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	4320 ug/kg	50.0	101	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-0-1	Project:	CHAR00712C
Sample ID:	322828021	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 16:05		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	5.08%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		1710	40.7	122	ug/kg	10	BCD1	04/04/13	1223	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		4880000	6960	20500	ug/kg	1	JWJ	04/08/13	1547	1292640	2
Arsenic		5680	511	3070	ug/kg	1					
Barium		231000	102	511	ug/kg	1					
Beryllium	J	217	102	511	ug/kg	1					
Cadmium		1670	102	511	ug/kg	1					
Calcium		9710000	8180	25600	ug/kg	1					
Chromium		21700	153	511	ug/kg	1					
Cobalt		2330	153	511	ug/kg	1					
Copper		61700	307	1020	ug/kg	1					
Iron		16400000	8180	25600	ug/kg	1					
Lead		747000	338	1020	ug/kg	1					
Magnesium		452000	8690	30700	ug/kg	1					
Manganese		169000	205	1020	ug/kg	1					
Nickel		9810	153	511	ug/kg	1					
Potassium		246000	6550	25600	ug/kg	1					
Selenium		3810	511	3070	ug/kg	1					
Silver		676	102	511	ug/kg	1					
Sodium		75900	7160	25600	ug/kg	1					
Thallium	J	666	511	2050	ug/kg	1					
Vanadium		7800	102	511	ug/kg	1					
Zinc		625000	409	1020	ug/kg	1					
Antimony		5060	338	1020	ug/kg	1	JWJ	04/10/13	1342	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	105	350	ug/kg	1	JMB3	04/11/13	1445	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	105	350	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	105	350	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	105	350	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	105	350	ug/kg	1					
2,4-Dichlorophenol	U	ND	105	350	ug/kg	1					
2,4-Dimethylphenol	U	ND	105	350	ug/kg	1					
2,4-Dinitrophenol	U	ND	105	700	ug/kg	1					

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-0-1	Project:	CHAR00712C
Sample ID:	322828021	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	105	350	ug/kg	1
2,6-Dinitrotoluene	U	ND	105	350	ug/kg	1
2-Chloronaphthalene	U	ND	10.5	35.0	ug/kg	1
2-Chlorophenol	U	ND	105	350	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	105	350	ug/kg	1
2-Methylnaphthalene	U	ND	10.5	35.0	ug/kg	1
2-Nitrophenol	U	ND	105	350	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	105	350	ug/kg	1
4-Bromophenylphenylether	U	ND	105	350	ug/kg	1
4-Chloro-3-methylphenol	U	ND	140	350	ug/kg	1
4-Chloroaniline	U	ND	105	350	ug/kg	1
4-Chlorophenylphenylether	U	ND	105	350	ug/kg	1
4-Nitrophenol	U	ND	105	350	ug/kg	1
Acenaphthene	U	ND	10.5	35.0	ug/kg	1
Acenaphthylene	U	ND	10.5	35.0	ug/kg	1
Acetophenone	U	ND	105	350	ug/kg	1
Anthracene	J	17.5	10.5	35.0	ug/kg	1
Atrazine	U	ND	140	350	ug/kg	1
Benzaldehyde	U	ND	105	350	ug/kg	1
Benzo(a)anthracene		149	10.5	35.0	ug/kg	1
Benzo(a)pyrene		158	10.5	35.0	ug/kg	1
Benzo(b)fluoranthene		254	10.5	35.0	ug/kg	1
Benzo(ghi)perylene		131	10.5	35.0	ug/kg	1
Benzo(k)fluoranthene		85.4	10.5	35.0	ug/kg	1
Butylbenzylphthalate	U	ND	105	350	ug/kg	1
Caprolactam	U	ND	105	350	ug/kg	1
Carbazole	J	22.0	10.5	35.0	ug/kg	1
Chrysene		170	10.5	35.0	ug/kg	1
Di-n-butylphthalate	U	ND	105	350	ug/kg	1
Di-n-octylphthalate	U	ND	105	350	ug/kg	1
Dibenzo(a,h)anthracene		38.8	10.5	35.0	ug/kg	1
Dibenzofuran	U	ND	105	350	ug/kg	1
Diethylphthalate	U	ND	105	350	ug/kg	1
Dimethylphthalate	U	ND	105	350	ug/kg	1
Diphenylamine	U	ND	105	350	ug/kg	1
Fluoranthene		319	10.5	35.0	ug/kg	1

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Certificate of Analysis

Report Date: April 16, 2013

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Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-0-1	Project:	CHAR00712C
Sample ID:	322828021	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	10.5	35.0	ug/kg	1
Hexachlorobenzene	U	ND	105	350	ug/kg	1
Hexachlorobutadiene	U	ND	105	350	ug/kg	1
Hexachlorocyclopentadiene	U	ND	105	350	ug/kg	1
Hexachloroethane	U	ND	105	350	ug/kg	1
Indeno(1,2,3-cd)pyrene		146	10.5	35.0	ug/kg	1
Isophorone	U	ND	105	350	ug/kg	1
N-Nitrosodipropylamine	U	ND	105	350	ug/kg	1
Naphthalene	U	ND	10.5	35.0	ug/kg	1
Nitrobenzene	U	ND	105	350	ug/kg	1
Pentachlorophenol	U	ND	105	350	ug/kg	1
Phenanthrene		148	10.5	35.0	ug/kg	1
Phenol	U	ND	105	350	ug/kg	1
Pyrene		319	10.5	35.0	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	105	350	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	105	350	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	105	350	ug/kg	1
bis(2-Ethylhexyl)phthalate	J	191	105	350	ug/kg	1
m,p-Cresols	U	ND	105	350	ug/kg	1
m-Nitroaniline	U	ND	105	350	ug/kg	1
o-Cresol	U	ND	105	350	ug/kg	1
o-Nitroaniline	U	ND	115	350	ug/kg	1
p-Nitroaniline	U	ND	105	350	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.282	0.941	ug/kg	1	RXY1	04/11/13	1425	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.282	0.941	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.282	0.941	ug/kg	1					
1,1-Dichloroethane	U	ND	0.282	0.941	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.282	0.941	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.376	0.941	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.282	0.941	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.470	0.941	ug/kg	1					
1,2-Dibromoethane	U	ND	0.282	0.941	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.282	0.941	ug/kg	1					
1,2-Dichloroethane	U	ND	0.282	0.941	ug/kg	1					

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 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-0-1	Project:	CHAR00712C
Sample ID:	322828021	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.282	0.941	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.282	0.941	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.282	0.941	ug/kg	1
1,4-Dioxane	U	ND	14.1	47.0	ug/kg	1
2-Butanone	U	ND	1.41	4.70	ug/kg	1
2-Hexanone	U	ND	1.41	4.70	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.41	4.70	ug/kg	1
Acetone	U	ND	1.41	4.70	ug/kg	1
Benzene	U	ND	0.282	0.941	ug/kg	1
Bromochloromethane	U	ND	0.282	0.941	ug/kg	1
Bromodichloromethane	U	ND	0.282	0.941	ug/kg	1
Bromoform	U	ND	0.282	0.941	ug/kg	1
Bromomethane	U	ND	0.282	0.941	ug/kg	1
Carbon disulfide	U	ND	1.41	4.70	ug/kg	1
Carbon tetrachloride	U	ND	0.282	0.941	ug/kg	1
Chlorobenzene	U	ND	0.282	0.941	ug/kg	1
Chloroethane	U	ND	0.282	0.941	ug/kg	1
Chloroform	U	ND	0.282	0.941	ug/kg	1
Chloromethane	U	ND	0.282	0.941	ug/kg	1
Cyclohexane	U	ND	0.282	0.941	ug/kg	1
Dibromochloromethane	U	ND	0.282	0.941	ug/kg	1
Dichlorodifluoromethane	U	ND	0.282	0.941	ug/kg	1
Ethylbenzene	J	0.433	0.282	0.941	ug/kg	1
Isopropylbenzene	U	ND	0.282	0.941	ug/kg	1
Methyl acetate	U	ND	1.41	4.70	ug/kg	1
Methylcyclohexane	U	ND	0.376	0.941	ug/kg	1
Methylene chloride	U	ND	1.88	4.70	ug/kg	1
Styrene	U	ND	0.282	0.941	ug/kg	1
Tetrachloroethylene	U	ND	0.282	0.941	ug/kg	1
Toluene	U	ND	0.282	0.941	ug/kg	1
Trichloroethylene	U	ND	0.282	0.941	ug/kg	1
Trichlorofluoromethane	U	ND	0.282	0.941	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.41	4.70	ug/kg	1
Vinyl chloride	U	ND	0.282	0.941	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.282	0.941	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.282	0.941	ug/kg	1

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Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-0-1	Project:	CHAR00712C
Sample ID:	322828021	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.282	1.88	ug/kg	1
o-Xylene	U	ND	0.282	0.941	ug/kg	1
tert-Butyl methyl ether	U	ND	0.282	0.941	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.282	0.941	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.282	0.941	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1605	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	979 ug/kg	1750	56.0	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	899 ug/kg	1750	51.4	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1360 ug/kg	1750	78.0	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2460 ug/kg	3500	70.3	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2030 ug/kg	3500	58.1	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2140 ug/kg	3500	61.2	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	38.3 ug/kg	50.0	81.5	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	51.9 ug/kg	50.0	110	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	47.4 ug/kg	50.0	101	(80%-120%)

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-4-5	Project:	CHAR00712C
Sample ID:	322828022	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 16:15		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	15.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury	U	ND	4.59	13.7	ug/kg	1	BCD1	04/04/13	1134	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5940000	8040	23600	ug/kg	1	JWJ	04/08/13	1559	1292640	2
Barium		11700	118	591	ug/kg	1					
Beryllium	U	ND	118	591	ug/kg	1					
Cadmium	U	ND	118	591	ug/kg	1					
Calcium		1200000	9460	29600	ug/kg	1					
Chromium		9580	177	591	ug/kg	1					
Cobalt		1290	177	591	ug/kg	1					
Copper	U	ND	355	1180	ug/kg	1					
Iron		4480000	9460	29600	ug/kg	1					
Lead		4080	390	1180	ug/kg	1					
Magnesium		556000	10000	35500	ug/kg	1					
Manganese		10900	236	1180	ug/kg	1					
Nickel		1590	177	591	ug/kg	1					
Potassium		257000	7560	29600	ug/kg	1					
Selenium	U	ND	591	3550	ug/kg	1					
Silver	U	ND	118	591	ug/kg	1					
Sodium	J	20200	8270	29600	ug/kg	1					
Thallium	U	ND	591	2360	ug/kg	1					
Vanadium		7620	118	591	ug/kg	1					
Zinc		8270	473	1180	ug/kg	1					
Antimony	J	727	390	1180	ug/kg	1	JWJ	04/10/13	1354	1292640	3
Arsenic	J	892	591	3550	ug/kg	1					
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	118	393	ug/kg	1	JMB3	04/09/13	2346	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	118	393	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	118	393	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	118	393	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	118	393	ug/kg	1					
2,4-Dichlorophenol	U	ND	118	393	ug/kg	1					
2,4-Dimethylphenol	U	ND	118	393	ug/kg	1					
2,4-Dinitrophenol	U	ND	118	785	ug/kg	1					

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 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-05-4-5
 Sample ID: 322828022

Project: CHAR00712C
 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	118	393	ug/kg	1
2,6-Dinitrotoluene	U	ND	118	393	ug/kg	1
2-Chloronaphthalene	U	ND	11.8	39.3	ug/kg	1
2-Chlorophenol	U	ND	118	393	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	118	393	ug/kg	1
2-Methylnaphthalene	U	ND	11.8	39.3	ug/kg	1
2-Nitrophenol	U	ND	118	393	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	118	393	ug/kg	1
4-Bromophenylphenylether	U	ND	118	393	ug/kg	1
4-Chloro-3-methylphenol	U	ND	157	393	ug/kg	1
4-Chloroaniline	U	ND	118	393	ug/kg	1
4-Chlorophenylphenylether	U	ND	118	393	ug/kg	1
4-Nitrophenol	U	ND	118	393	ug/kg	1
Acenaphthene	U	ND	11.8	39.3	ug/kg	1
Acenaphthylene	U	ND	11.8	39.3	ug/kg	1
Acetophenone	U	ND	118	393	ug/kg	1
Anthracene	U	ND	11.8	39.3	ug/kg	1
Atrazine	U	ND	157	393	ug/kg	1
Benzaldehyde	U	ND	118	393	ug/kg	1
Benzo(a)anthracene	U	ND	11.8	39.3	ug/kg	1
Benzo(a)pyrene	U	ND	11.8	39.3	ug/kg	1
Benzo(b)fluoranthene	U	ND	11.8	39.3	ug/kg	1
Benzo(ghi)perylene	U	ND	11.8	39.3	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.8	39.3	ug/kg	1
Butylbenzylphthalate	U	ND	118	393	ug/kg	1
Caprolactam	U	ND	118	393	ug/kg	1
Carbazole	U	ND	11.8	39.3	ug/kg	1
Chrysene	U	ND	11.8	39.3	ug/kg	1
Di-n-butylphthalate	U	ND	118	393	ug/kg	1
Di-n-octylphthalate	U	ND	118	393	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.8	39.3	ug/kg	1
Dibenzo-furan	U	ND	118	393	ug/kg	1
Diethylphthalate	U	ND	118	393	ug/kg	1
Dimethylphthalate	U	ND	118	393	ug/kg	1
Diphenylamine	U	ND	118	393	ug/kg	1
Fluoranthene	U	ND	11.8	39.3	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-4-5	Project:	CHAR00712C
Sample ID:	322828022	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.8	39.3	ug/kg	1
Hexachlorobenzene	U	ND	118	393	ug/kg	1
Hexachlorobutadiene	U	ND	118	393	ug/kg	1
Hexachlorocyclopentadiene	U	ND	118	393	ug/kg	1
Hexachloroethane	U	ND	118	393	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.8	39.3	ug/kg	1
Isophorone	U	ND	118	393	ug/kg	1
N-Nitrosodipropylamine	U	ND	118	393	ug/kg	1
Naphthalene	U	ND	11.8	39.3	ug/kg	1
Nitrobenzene	U	ND	118	393	ug/kg	1
Pentachlorophenol	U	ND	118	393	ug/kg	1
Phenanthrene	U	ND	11.8	39.3	ug/kg	1
Phenol	U	ND	118	393	ug/kg	1
Pyrene	U	ND	11.8	39.3	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	118	393	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	118	393	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	118	393	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	118	393	ug/kg	1
m,p-Cresols	U	ND	118	393	ug/kg	1
m-Nitroaniline	U	ND	118	393	ug/kg	1
o-Cresol	U	ND	118	393	ug/kg	1
o-Nitroaniline	U	ND	130	393	ug/kg	1
p-Nitroaniline	U	ND	118	393	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.277	0.923	ug/kg	1	RXY1	04/11/13	1452	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.277	0.923	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.277	0.923	ug/kg	1					
1,1-Dichloroethane	U	ND	0.277	0.923	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.277	0.923	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.369	0.923	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.277	0.923	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.462	0.923	ug/kg	1					
1,2-Dibromoethane	U	ND	0.277	0.923	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.277	0.923	ug/kg	1					
1,2-Dichloroethane	U	ND	0.277	0.923	ug/kg	1					

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Client Sample ID:	PC-SS-05-4-5	Project:	CHAR00712C
Sample ID:	322828022	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.277	0.923	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.277	0.923	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.277	0.923	ug/kg	1
1,4-Dioxane	U	ND	13.9	46.2	ug/kg	1
2-Butanone	U	ND	1.39	4.62	ug/kg	1
2-Hexanone	U	ND	1.39	4.62	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.39	4.62	ug/kg	1
Acetone	U	ND	1.39	4.62	ug/kg	1
Benzene	U	ND	0.277	0.923	ug/kg	1
Bromochloromethane	U	ND	0.277	0.923	ug/kg	1
Bromodichloromethane	U	ND	0.277	0.923	ug/kg	1
Bromoform	U	ND	0.277	0.923	ug/kg	1
Bromomethane	U	ND	0.277	0.923	ug/kg	1
Carbon disulfide	U	ND	1.39	4.62	ug/kg	1
Carbon tetrachloride	U	ND	0.277	0.923	ug/kg	1
Chlorobenzene	U	ND	0.277	0.923	ug/kg	1
Chloroethane	U	ND	0.277	0.923	ug/kg	1
Chloroform	U	ND	0.277	0.923	ug/kg	1
Chloromethane	U	ND	0.277	0.923	ug/kg	1
Cyclohexane	U	ND	0.277	0.923	ug/kg	1
Dibromochloromethane	U	ND	0.277	0.923	ug/kg	1
Dichlorodifluoromethane	U	ND	0.277	0.923	ug/kg	1
Ethylbenzene	J	0.342	0.277	0.923	ug/kg	1
Isopropylbenzene	U	ND	0.277	0.923	ug/kg	1
Methyl acetate	U	ND	1.39	4.62	ug/kg	1
Methylcyclohexane	U	ND	0.369	0.923	ug/kg	1
Methylene chloride	U	ND	1.85	4.62	ug/kg	1
Styrene	U	ND	0.277	0.923	ug/kg	1
Tetrachloroethylene	U	ND	0.277	0.923	ug/kg	1
Toluene	U	ND	0.277	0.923	ug/kg	1
Trichloroethylene	U	ND	0.277	0.923	ug/kg	1
Trichlorofluoromethane	U	ND	0.277	0.923	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.39	4.62	ug/kg	1
Vinyl chloride	U	ND	0.277	0.923	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.277	0.923	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.277	0.923	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-05-4-5	Project:	CHAR00712C
Sample ID:	322828022	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.277	1.85	ug/kg	1
o-Xylene	U	ND	0.277	0.923	ug/kg	1
tert-Butyl methyl ether	U	ND	0.277	0.923	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.277	0.923	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.277	0.923	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1615	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1060 ug/kg	1960	54.1	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1070 ug/kg	1960	54.4	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1640 ug/kg	1960	83.8	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2530 ug/kg	3930	64.3	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2460 ug/kg	3930	62.6	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2310 ug/kg	3930	58.8	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	38.4 ug/kg	50.0	83.2	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	50.6 ug/kg	50.0	110	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	47.8 ug/kg	50.0	104	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-0-1	Project:	CHAR00712C
Sample ID:	322828023	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 16:30		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		234		4.08	12.2	ug/kg	1	BCD1	04/04/13	1136	1292604
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5280000		7580	22300	ug/kg	1	JWJ	04/08/13	1602	1292640
Barium		54500		112	558	ug/kg	1				
Beryllium	J	193		112	558	ug/kg	1				
Cadmium	U	ND		112	558	ug/kg	1				
Calcium		14000000		8920	27900	ug/kg	1				
Chromium		11400		167	558	ug/kg	1				
Cobalt		2070		167	558	ug/kg	1				
Copper		31100		335	1120	ug/kg	1				
Iron		10700000		8920	27900	ug/kg	1				
Lead		132000		368	1120	ug/kg	1				
Magnesium		584000		9480	33500	ug/kg	1				
Manganese		96400		223	1120	ug/kg	1				
Nickel		3780		167	558	ug/kg	1				
Potassium		116000		7140	27900	ug/kg	1				
Selenium	J	2290		558	3350	ug/kg	1				
Silver	J	126		112	558	ug/kg	1				
Sodium		102000		7810	27900	ug/kg	1				
Thallium	U	ND		558	2230	ug/kg	1				
Vanadium		8800		112	558	ug/kg	1				
Zinc		72000		446	1120	ug/kg	1				
Antimony		2280		368	1120	ug/kg	1	JWJ	04/10/13	1356	1292640
Arsenic	J	3180		558	3350	ug/kg	1				
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		111	371	ug/kg	1	JMB3	04/10/13	1142	1293524
1,2,4,5-Tetrachlorobenzene	U	ND		111	371	ug/kg	1				
2,3,4,6-Tetrachlorophenol	U	ND		111	371	ug/kg	1				
2,4,5-Trichlorophenol	U	ND		111	371	ug/kg	1				
2,4,6-Trichlorophenol	U	ND		111	371	ug/kg	1				
2,4-Dichlorophenol	U	ND		111	371	ug/kg	1				
2,4-Dimethylphenol	U	ND		111	371	ug/kg	1				
2,4-Dinitrophenol	U	ND		111	742	ug/kg	1				

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-0-1	Project:	CHAR00712C
Sample ID:	322828023	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	111	371	ug/kg	1
2,6-Dinitrotoluene	U	ND	111	371	ug/kg	1
2-Chloronaphthalene	U	ND	11.1	37.1	ug/kg	1
2-Chlorophenol	U	ND	111	371	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	111	371	ug/kg	1
2-Methylnaphthalene	U	ND	11.1	37.1	ug/kg	1
2-Nitrophenol	U	ND	111	371	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	111	371	ug/kg	1
4-Bromophenylphenylether	U	ND	111	371	ug/kg	1
4-Chloro-3-methylphenol	U	ND	148	371	ug/kg	1
4-Chloroaniline	U	ND	111	371	ug/kg	1
4-Chlorophenylphenylether	U	ND	111	371	ug/kg	1
4-Nitrophenol	U	ND	111	371	ug/kg	1
Acenaphthene	U	ND	11.1	37.1	ug/kg	1
Acenaphthylene	U	ND	11.1	37.1	ug/kg	1
Acetophenone	U	ND	111	371	ug/kg	1
Anthracene	U	ND	11.1	37.1	ug/kg	1
Atrazine	U	ND	148	371	ug/kg	1
Benzaldehyde	U	ND	111	371	ug/kg	1
Benzo(a)anthracene		48.2	11.1	37.1	ug/kg	1
Benzo(a)pyrene		54.9	11.1	37.1	ug/kg	1
Benzo(b)fluoranthene		80.9	11.1	37.1	ug/kg	1
Benzo(ghi)perylene		49.7	11.1	37.1	ug/kg	1
Benzo(k)fluoranthene	J	27.1	11.1	37.1	ug/kg	1
Butylbenzylphthalate	U	ND	111	371	ug/kg	1
Caprolactam	U	ND	111	371	ug/kg	1
Carbazole	J	14.5	11.1	37.1	ug/kg	1
Chrysene		60.5	11.1	37.1	ug/kg	1
Di-n-butylphthalate	U	ND	111	371	ug/kg	1
Di-n-octylphthalate	U	ND	111	371	ug/kg	1
Dibenzo(a,h)anthracene	J	16.7	11.1	37.1	ug/kg	1
Dibenzofuran	U	ND	111	371	ug/kg	1
Diethylphthalate	U	ND	111	371	ug/kg	1
Dimethylphthalate	U	ND	111	371	ug/kg	1
Diphenylamine	U	ND	111	371	ug/kg	1
Fluoranthene		150	11.1	37.1	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-0-1	Project:	CHAR00712C
Sample ID:	322828023	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.1	37.1	ug/kg	1
Hexachlorobenzene	U	ND	111	371	ug/kg	1
Hexachlorobutadiene	U	ND	111	371	ug/kg	1
Hexachlorocyclopentadiene	U	ND	111	371	ug/kg	1
Hexachloroethane	U	ND	111	371	ug/kg	1
Indeno(1,2,3-cd)pyrene		54.2	11.1	37.1	ug/kg	1
Isophorone	U	ND	111	371	ug/kg	1
N-Nitrosodipropylamine	U	ND	111	371	ug/kg	1
Naphthalene	U	ND	11.1	37.1	ug/kg	1
Nitrobenzene	U	ND	111	371	ug/kg	1
Pentachlorophenol	U	ND	111	371	ug/kg	1
Phenanthrene		114	11.1	37.1	ug/kg	1
Phenol	U	ND	111	371	ug/kg	1
Pyrene		122	11.1	37.1	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	111	371	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	111	371	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	111	371	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	111	371	ug/kg	1
m,p-Cresols	U	ND	111	371	ug/kg	1
m-Nitroaniline	U	ND	111	371	ug/kg	1
o-Cresol	U	ND	111	371	ug/kg	1
o-Nitroaniline	U	ND	122	371	ug/kg	1
p-Nitroaniline	U	ND	111	371	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.262	0.873	ug/kg	1	RXY1	04/11/13	1520	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.262	0.873	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.262	0.873	ug/kg	1					
1,1-Dichloroethane	U	ND	0.262	0.873	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.262	0.873	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.349	0.873	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.262	0.873	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.436	0.873	ug/kg	1					
1,2-Dibromoethane	U	ND	0.262	0.873	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.262	0.873	ug/kg	1					
1,2-Dichloroethane	U	ND	0.262	0.873	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-0-1	Project:	CHAR00712C
Sample ID:	322828023	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.262	0.873	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.262	0.873	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.262	0.873	ug/kg	1
1,4-Dioxane	U	ND	13.1	43.6	ug/kg	1
2-Butanone	U	ND	1.31	4.36	ug/kg	1
2-Hexanone	U	ND	1.31	4.36	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.31	4.36	ug/kg	1
Acetone	U	ND	1.31	4.36	ug/kg	1
Benzene	U	ND	0.262	0.873	ug/kg	1
Bromochloromethane	U	ND	0.262	0.873	ug/kg	1
Bromodichloromethane	U	ND	0.262	0.873	ug/kg	1
Bromoform	U	ND	0.262	0.873	ug/kg	1
Bromomethane	U	ND	0.262	0.873	ug/kg	1
Carbon disulfide	U	ND	1.31	4.36	ug/kg	1
Carbon tetrachloride	U	ND	0.262	0.873	ug/kg	1
Chlorobenzene	U	ND	0.262	0.873	ug/kg	1
Chloroethane	U	ND	0.262	0.873	ug/kg	1
Chloroform	U	ND	0.262	0.873	ug/kg	1
Chloromethane	U	ND	0.262	0.873	ug/kg	1
Cyclohexane	U	ND	0.262	0.873	ug/kg	1
Dibromochloromethane	U	ND	0.262	0.873	ug/kg	1
Dichlorodifluoromethane	U	ND	0.262	0.873	ug/kg	1
Ethylbenzene	U	ND	0.262	0.873	ug/kg	1
Isopropylbenzene	U	ND	0.262	0.873	ug/kg	1
Methyl acetate	U	ND	1.31	4.36	ug/kg	1
Methylcyclohexane	U	ND	0.349	0.873	ug/kg	1
Methylene chloride	U	ND	1.75	4.36	ug/kg	1
Styrene	U	ND	0.262	0.873	ug/kg	1
Tetrachloroethylene	U	ND	0.262	0.873	ug/kg	1
Toluene	U	ND	0.262	0.873	ug/kg	1
Trichloroethylene	U	ND	0.262	0.873	ug/kg	1
Trichlorofluoromethane	U	ND	0.262	0.873	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.31	4.36	ug/kg	1
Vinyl chloride	U	ND	0.262	0.873	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.262	0.873	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.262	0.873	ug/kg	1

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-0-1	Project:	CHAR00712C
Sample ID:	322828023	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.262	1.75	ug/kg	1
o-Xylene	U	ND	0.262	0.873	ug/kg	1
tert-Butyl methyl ether	U	ND	0.262	0.873	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.262	0.873	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.262	0.873	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1630	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1140 ug/kg	1850	61.7	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1110 ug/kg	1850	60.0	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1440 ug/kg	1850	77.7	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2930 ug/kg	3710	79.1	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2480 ug/kg	3710	66.9	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2380 ug/kg	3710	64.1	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	36.8 ug/kg	50.0	84.3	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	44.4 ug/kg	50.0	102	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	41.0 ug/kg	50.0	93.8	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-4-5	Project:	CHAR00712C
Sample ID:	322828024	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 16:40		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	11%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		14.4		4.32	ug/kg	1	BCD1	04/04/13	1138	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		6790000		7490	ug/kg	1	JWJ	04/08/13	1605	1292640	2
Barium		14800		110	ug/kg	1					
Beryllium	U	ND		110	ug/kg	1					
Cadmium	U	ND		110	ug/kg	1					
Calcium		1000000		8810	ug/kg	1					
Chromium		16800		165	ug/kg	1					
Cobalt		645		165	ug/kg	1					
Copper	J	979		331	ug/kg	1					
Iron		4870000		8810	ug/kg	1					
Lead		18400		364	ug/kg	1					
Magnesium		241000		9370	ug/kg	1					
Manganese		11200		220	ug/kg	1					
Nickel		1610		165	ug/kg	1					
Potassium		175000		7050	ug/kg	1					
Selenium	J	574		551	ug/kg	1					
Silver	U	ND		110	ug/kg	1					
Sodium		70600		7710	ug/kg	1					
Thallium	U	ND		551	ug/kg	1					
Vanadium		7810		110	ug/kg	1					
Zinc		8400		441	ug/kg	1					
Antimony	J	777		1100	ug/kg	1	JWJ	04/10/13	1359	1292640	3
Arsenic	J	909		551	ug/kg	1					
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	112	373	ug/kg	1	JMB3	04/10/13	1212	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	112	373	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	112	373	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	112	373	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	112	373	ug/kg	1					
2,4-Dichlorophenol	U	ND	112	373	ug/kg	1					
2,4-Dimethylphenol	U	ND	112	373	ug/kg	1					
2,4-Dinitrophenol	U	ND	112	746	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-06-4-5
 Sample ID: 322828024

Project: CHAR00712C
 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	112	373	ug/kg	1
2,6-Dinitrotoluene	U	ND	112	373	ug/kg	1
2-Chloronaphthalene	U	ND	11.2	37.3	ug/kg	1
2-Chlorophenol	U	ND	112	373	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	112	373	ug/kg	1
2-Methylnaphthalene	U	ND	11.2	37.3	ug/kg	1
2-Nitrophenol	U	ND	112	373	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	112	373	ug/kg	1
4-Bromophenylphenylether	U	ND	112	373	ug/kg	1
4-Chloro-3-methylphenol	U	ND	149	373	ug/kg	1
4-Chloroaniline	U	ND	112	373	ug/kg	1
4-Chlorophenylphenylether	U	ND	112	373	ug/kg	1
4-Nitrophenol	U	ND	112	373	ug/kg	1
Acenaphthene	U	ND	11.2	37.3	ug/kg	1
Acenaphthylene	U	ND	11.2	37.3	ug/kg	1
Acetophenone	U	ND	112	373	ug/kg	1
Anthracene	U	ND	11.2	37.3	ug/kg	1
Atrazine	U	ND	149	373	ug/kg	1
Benzaldehyde	U	ND	112	373	ug/kg	1
Benzo(a)anthracene	J	15.3	11.2	37.3	ug/kg	1
Benzo(a)pyrene	U	ND	11.2	37.3	ug/kg	1
Benzo(b)fluoranthene	J	12.7	11.2	37.3	ug/kg	1
Benzo(ghi)perylene	U	ND	11.2	37.3	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.2	37.3	ug/kg	1
Butylbenzylphthalate	U	ND	112	373	ug/kg	1
Caprolactam	U	ND	112	373	ug/kg	1
Carbazole	U	ND	11.2	37.3	ug/kg	1
Chrysene	J	12.3	11.2	37.3	ug/kg	1
Di-n-butylphthalate	U	ND	112	373	ug/kg	1
Di-n-octylphthalate	U	ND	112	373	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.2	37.3	ug/kg	1
Dibenzofuran	U	ND	112	373	ug/kg	1
Diethylphthalate	U	ND	112	373	ug/kg	1
Dimethylphthalate	U	ND	112	373	ug/kg	1
Diphenylamine	U	ND	112	373	ug/kg	1
Fluoranthene		44.4	11.2	37.3	ug/kg	1

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-4-5	Project:	CHAR00712C
Sample ID:	322828024	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.2	37.3	ug/kg	1
Hexachlorobenzene	U	ND	112	373	ug/kg	1
Hexachlorobutadiene	U	ND	112	373	ug/kg	1
Hexachlorocyclopentadiene	U	ND	112	373	ug/kg	1
Hexachloroethane	U	ND	112	373	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.2	37.3	ug/kg	1
Isophorone	U	ND	112	373	ug/kg	1
N-Nitrosodipropylamine	U	ND	112	373	ug/kg	1
Naphthalene	U	ND	11.2	37.3	ug/kg	1
Nitrobenzene	U	ND	112	373	ug/kg	1
Pentachlorophenol	U	ND	112	373	ug/kg	1
Phenanthrene	J	35.1	11.2	37.3	ug/kg	1
Phenol	U	ND	112	373	ug/kg	1
Pyrene	J	33.2	11.2	37.3	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	112	373	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	112	373	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	112	373	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	112	373	ug/kg	1
m,p-Cresols	U	ND	112	373	ug/kg	1
m-Nitroaniline	U	ND	112	373	ug/kg	1
o-Cresol	U	ND	112	373	ug/kg	1
o-Nitroaniline	U	ND	123	373	ug/kg	1
p-Nitroaniline	U	ND	112	373	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.263	0.878	ug/kg	1	RXY1	04/11/13	1547	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.263	0.878	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.263	0.878	ug/kg	1					
1,1-Dichloroethane	U	ND	0.263	0.878	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.263	0.878	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.351	0.878	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.263	0.878	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.439	0.878	ug/kg	1					
1,2-Dibromoethane	U	ND	0.263	0.878	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.263	0.878	ug/kg	1					
1,2-Dichloroethane	U	ND	0.263	0.878	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-06-4-5
 Sample ID: 322828024

Project: CHAR00712C
 Client ID: GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.263	0.878	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.263	0.878	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.263	0.878	ug/kg	1
1,4-Dioxane	U	ND	13.2	43.9	ug/kg	1
2-Butanone	U	ND	1.32	4.39	ug/kg	1
2-Hexanone	U	ND	1.32	4.39	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.32	4.39	ug/kg	1
Acetone	U	ND	1.32	4.39	ug/kg	1
Benzene	U	ND	0.263	0.878	ug/kg	1
Bromochloromethane	U	ND	0.263	0.878	ug/kg	1
Bromodichloromethane	U	ND	0.263	0.878	ug/kg	1
Bromoform	U	ND	0.263	0.878	ug/kg	1
Bromomethane	U	ND	0.263	0.878	ug/kg	1
Carbon disulfide	U	ND	1.32	4.39	ug/kg	1
Carbon tetrachloride	U	ND	0.263	0.878	ug/kg	1
Chlorobenzene	U	ND	0.263	0.878	ug/kg	1
Chloroethane	U	ND	0.263	0.878	ug/kg	1
Chloroform	U	ND	0.263	0.878	ug/kg	1
Chloromethane	U	ND	0.263	0.878	ug/kg	1
Cyclohexane	U	ND	0.263	0.878	ug/kg	1
Dibromochloromethane	U	ND	0.263	0.878	ug/kg	1
Dichlorodifluoromethane	U	ND	0.263	0.878	ug/kg	1
Ethylbenzene	U	ND	0.263	0.878	ug/kg	1
Isopropylbenzene	U	ND	0.263	0.878	ug/kg	1
Methyl acetate	U	ND	1.32	4.39	ug/kg	1
Methylcyclohexane	J	0.369	0.351	0.878	ug/kg	1
Methylene chloride	U	ND	1.76	4.39	ug/kg	1
Styrene	U	ND	0.263	0.878	ug/kg	1
Tetrachloroethylene	U	ND	0.263	0.878	ug/kg	1
Toluene	J	0.571	0.263	0.878	ug/kg	1
Trichloroethylene	U	ND	0.263	0.878	ug/kg	1
Trichlorofluoromethane	U	ND	0.263	0.878	ug/kg	1
Trichlorotrifluoroethane	U	ND	1.32	4.39	ug/kg	1
Vinyl chloride	U	ND	0.263	0.878	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.263	0.878	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.263	0.878	ug/kg	1

Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-06-4-5	Project:	CHAR00712C
Sample ID:	322828024	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	J	0.290	0.263	1.76	ug/kg	1
o-Xylene	U	ND	0.263	0.878	ug/kg	1
tert-Butyl methyl ether	U	ND	0.263	0.878	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.263	0.878	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.263	0.878	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1640	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7471B		
2	SW846 3050B/6010C		
3	SW846 3050B/6010C		
4	SW846 3550C/8270D		
5	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1050 ug/kg	1860	56.2	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1060 ug/kg	1860	56.7	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1570 ug/kg	1860	84.0	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2990 ug/kg	3730	80.3	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2430 ug/kg	3730	65.1	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2290 ug/kg	3730	61.5	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	34.6 ug/kg	50.0	78.9	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	51.1 ug/kg	50.0	117	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	46.0 ug/kg	50.0	105	(80%-120%)

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Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-0-1	Project:	CHAR00712C
Sample ID:	322828025	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 17:00		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	9.25%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		1760		42.3		126		ug/kg		10	BCD1 04/04/13 1224 1292604 1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		4010000		7490		22000		ug/kg		1	JWJ 04/08/13 1607 1292640 2
Arsenic		7380		551		3310		ug/kg		1	
Barium		110000		110		551		ug/kg		1	
Beryllium		585		110		551		ug/kg		1	
Cadmium		705		110		551		ug/kg		1	
Calcium		3440000		8820		27500		ug/kg		1	
Chromium		14100		165		551		ug/kg		1	
Cobalt		4950		165		551		ug/kg		1	
Copper		770000		331		1100		ug/kg		1	
Iron		18700000		8820		27500		ug/kg		1	
Lead		494000		364		1100		ug/kg		1	
Magnesium		458000		9370		33100		ug/kg		1	
Manganese		83800		220		1100		ug/kg		1	
Nickel		11000		165		551		ug/kg		1	
Potassium		191000		7050		27500		ug/kg		1	
Selenium		5170		551		3310		ug/kg		1	
Silver	J	206		110		551		ug/kg		1	
Sodium		36500		7710		27500		ug/kg		1	
Thallium	J	901		551		2200		ug/kg		1	
Vanadium		8330		110		551		ug/kg		1	
Zinc		227000		441		1100		ug/kg		1	
Antimony		10400		364		1100		ug/kg		1	JWJ 04/10/13 1402 1292640 3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		110		367		ug/kg		1	JMB3 04/10/13 1411 1293524 4
1,2,4,5-Tetrachlorobenzene	U	ND		110		367		ug/kg		1	
2,3,4,6-Tetrachlorophenol	U	ND		110		367		ug/kg		1	
2,4,5-Trichlorophenol	U	ND		110		367		ug/kg		1	
2,4,6-Trichlorophenol	U	ND		110		367		ug/kg		1	
2,4-Dichlorophenol	U	ND		110		367		ug/kg		1	
2,4-Dimethylphenol	U	ND		110		367		ug/kg		1	
2,4-Dinitrophenol	U	ND		110		734		ug/kg		1	

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-0-1	Project:	CHAR00712C
Sample ID:	322828025	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	110	367	ug/kg	1
2,6-Dinitrotoluene	U	ND	110	367	ug/kg	1
2-Chloronaphthalene	U	ND	11.0	36.7	ug/kg	1
2-Chlorophenol	U	ND	110	367	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	110	367	ug/kg	1
2-Methylnaphthalene		49.9	11.0	36.7	ug/kg	1
2-Nitrophenol	U	ND	110	367	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	110	367	ug/kg	1
4-Bromophenylphenylether	U	ND	110	367	ug/kg	1
4-Chloro-3-methylphenol	U	ND	147	367	ug/kg	1
4-Chloroaniline	U	ND	110	367	ug/kg	1
4-Chlorophenylphenylether	U	ND	110	367	ug/kg	1
4-Nitrophenol	U	ND	110	367	ug/kg	1
Acenaphthene	U	ND	11.0	36.7	ug/kg	1
Acenaphthylene	J	12.1	11.0	36.7	ug/kg	1
Acetophenone	U	ND	110	367	ug/kg	1
Anthracene	J	18.7	11.0	36.7	ug/kg	1
Atrazine	U	ND	147	367	ug/kg	1
Benzaldehyde	U	ND	110	367	ug/kg	1
Benzo(a)anthracene		160	11.0	36.7	ug/kg	1
Benzo(a)pyrene		195	11.0	36.7	ug/kg	1
Benzo(b)fluoranthene		262	11.0	36.7	ug/kg	1
Benzo(ghi)perylene		152	11.0	36.7	ug/kg	1
Benzo(k)fluoranthene		88.4	11.0	36.7	ug/kg	1
Butylbenzylphthalate	U	ND	110	367	ug/kg	1
Caprolactam	U	ND	110	367	ug/kg	1
Carbazole	J	15.8	11.0	36.7	ug/kg	1
Chrysene		172	11.0	36.7	ug/kg	1
Di-n-butylphthalate	U	ND	110	367	ug/kg	1
Di-n-octylphthalate	U	ND	110	367	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.0	36.7	ug/kg	1
Dibenzo-furan	U	ND	110	367	ug/kg	1
Diethylphthalate	U	ND	110	367	ug/kg	1
Dimethylphthalate	U	ND	110	367	ug/kg	1
Diphenylamine	U	ND	110	367	ug/kg	1
Fluoranthene		238	11.0	36.7	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-0-1	Project:	CHAR00712C
Sample ID:	322828025	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.0	36.7	ug/kg	1
Hexachlorobenzene	U	ND	110	367	ug/kg	1
Hexachlorobutadiene	U	ND	110	367	ug/kg	1
Hexachlorocyclopentadiene	U	ND	110	367	ug/kg	1
Hexachloroethane	U	ND	110	367	ug/kg	1
Indeno(1,2,3-cd)pyrene		152	11.0	36.7	ug/kg	1
Isophorone	U	ND	110	367	ug/kg	1
N-Nitrosodipropylamine	U	ND	110	367	ug/kg	1
Naphthalene	J	27.1	11.0	36.7	ug/kg	1
Nitrobenzene	U	ND	110	367	ug/kg	1
Pentachlorophenol	U	ND	110	367	ug/kg	1
Phenanthrene		137	11.0	36.7	ug/kg	1
Phenol	U	ND	110	367	ug/kg	1
Pyrene		283	11.0	36.7	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	110	367	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	110	367	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	110	367	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	110	367	ug/kg	1
m,p-Cresols	U	ND	110	367	ug/kg	1
m-Nitroaniline	U	ND	110	367	ug/kg	1
o-Cresol	U	ND	110	367	ug/kg	1
o-Nitroaniline	U	ND	121	367	ug/kg	1
p-Nitroaniline	U	ND	110	367	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.258	0.861	ug/kg	1	RXY1	04/11/13	1614	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.258	0.861	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.258	0.861	ug/kg	1					
1,1-Dichloroethane	U	ND	0.258	0.861	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.258	0.861	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.344	0.861	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.258	0.861	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.430	0.861	ug/kg	1					
1,2-Dibromoethane	U	ND	0.258	0.861	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.258	0.861	ug/kg	1					
1,2-Dichloroethane	U	ND	0.258	0.861	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-0-1	Project:	CHAR00712C
Sample ID:	322828025	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.258	0.861	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.258	0.861	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.258	0.861	ug/kg	1
1,4-Dioxane	U	ND	12.9	43.0	ug/kg	1
2-Butanone	U	ND	1.29	4.30	ug/kg	1
2-Hexanone	U	ND	1.29	4.30	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.29	4.30	ug/kg	1
Acetone	U	ND	1.29	4.30	ug/kg	1
Benzene	U	ND	0.258	0.861	ug/kg	1
Bromochloromethane	U	ND	0.258	0.861	ug/kg	1
Bromodichloromethane	U	ND	0.258	0.861	ug/kg	1
Bromoform	U	ND	0.258	0.861	ug/kg	1
Bromomethane	U	ND	0.258	0.861	ug/kg	1
Carbon disulfide	U	ND	1.29	4.30	ug/kg	1
Carbon tetrachloride	U	ND	0.258	0.861	ug/kg	1
Chlorobenzene	U	ND	0.258	0.861	ug/kg	1
Chloroethane	U	ND	0.258	0.861	ug/kg	1
Chloroform	U	ND	0.258	0.861	ug/kg	1
Chloromethane	U	ND	0.258	0.861	ug/kg	1
Cyclohexane	U	ND	0.258	0.861	ug/kg	1
Dibromochloromethane	U	ND	0.258	0.861	ug/kg	1
Dichlorodifluoromethane	U	ND	0.258	0.861	ug/kg	1
Ethylbenzene	U	ND	0.258	0.861	ug/kg	1
Isopropylbenzene	U	ND	0.258	0.861	ug/kg	1
Methyl acetate	U	ND	1.29	4.30	ug/kg	1
Methylcyclohexane	U	ND	0.344	0.861	ug/kg	1
Methylene chloride	U	ND	1.72	4.30	ug/kg	1
Styrene	U	ND	0.258	0.861	ug/kg	1
Tetrachloroethylene	U	ND	0.258	0.861	ug/kg	1
Toluene	U	ND	0.258	0.861	ug/kg	1
Trichloroethylene	U	ND	0.258	0.861	ug/kg	1
Trichlorofluoromethane	U	ND	0.258	0.861	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.29	4.30	ug/kg	1
Vinyl chloride	U	ND	0.258	0.861	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.258	0.861	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.258	0.861	ug/kg	1

Certificate of Analysis

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Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-0-1	Project:	CHAR00712C
Sample ID:	322828025	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.258	1.72	ug/kg	1
o-Xylene	U	ND	0.258	0.861	ug/kg	1
tert-Butyl methyl ether	U	ND	0.258	0.861	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.258	0.861	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.258	0.861	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1700	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	817 ug/kg	1830	44.5	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	817 ug/kg	1830	44.5	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1310 ug/kg	1830	71.5	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2380 ug/kg	3670	64.8	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1790 ug/kg	3670	48.7	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1880 ug/kg	3670	51.3	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	35.3 ug/kg	50.0	81.9	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	44.1 ug/kg	50.0	102	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	40.9 ug/kg	50.0	95.0	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-4-5	Project:	CHAR00712C
Sample ID:	322828026	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 17:10		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	16.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		75.2		4.55	13.6	ug/kg	1	BCD1	04/04/13	1144	1292604
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5240000		7990	23500	ug/kg	1	JWJ	04/08/13	1610	1292640
Barium		26600		117	587	ug/kg	1				
Beryllium	J	245		117	587	ug/kg	1				
Cadmium	J	126		117	587	ug/kg	1				
Calcium		919000		9400	29400	ug/kg	1				
Chromium		3970		176	587	ug/kg	1				
Cobalt	J	489		176	587	ug/kg	1				
Copper		33000		352	1170	ug/kg	1				
Iron		1550000		9400	29400	ug/kg	1				
Lead		7640		388	1170	ug/kg	1				
Magnesium		109000		9990	35200	ug/kg	1				
Manganese		6420		235	1170	ug/kg	1				
Nickel		1310		176	587	ug/kg	1				
Potassium		146000		7520	29400	ug/kg	1				
Selenium	U	ND		587	3520	ug/kg	1				
Silver	U	ND		117	587	ug/kg	1				
Sodium	J	27400		8220	29400	ug/kg	1				
Thallium	U	ND		587	2350	ug/kg	1				
Vanadium		3270		117	587	ug/kg	1				
Zinc		51800		470	1170	ug/kg	1				
Antimony	U	ND		388	1170	ug/kg	1	JWJ	04/10/13	1405	1292640
Arsenic	U	ND		587	3520	ug/kg	1				
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND		120	400	ug/kg	1	JMB3	04/10/13	0114	1293524
1,2,4,5-Tetrachlorobenzene	U	ND		120	400	ug/kg	1				
2,3,4,6-Tetrachlorophenol	U	ND		120	400	ug/kg	1				
2,4,5-Trichlorophenol	U	ND		120	400	ug/kg	1				
2,4,6-Trichlorophenol	U	ND		120	400	ug/kg	1				
2,4-Dichlorophenol	U	ND		120	400	ug/kg	1				
2,4-Dimethylphenol	U	ND		120	400	ug/kg	1				
2,4-Dinitrophenol	U	ND		120	799	ug/kg	1				

Certificate of Analysis

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Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-07-4-5
 Sample ID: 322828026

Project: CHAR00712C
 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	120	400	ug/kg	1
2,6-Dinitrotoluene	U	ND	120	400	ug/kg	1
2-Chloronaphthalene	U	ND	12.0	40.0	ug/kg	1
2-Chlorophenol	U	ND	120	400	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	120	400	ug/kg	1
2-Methylnaphthalene	U	ND	12.0	40.0	ug/kg	1
2-Nitrophenol	U	ND	120	400	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	120	400	ug/kg	1
4-Bromophenylphenylether	U	ND	120	400	ug/kg	1
4-Chloro-3-methylphenol	U	ND	160	400	ug/kg	1
4-Chloroaniline	U	ND	120	400	ug/kg	1
4-Chlorophenylphenylether	U	ND	120	400	ug/kg	1
4-Nitrophenol	U	ND	120	400	ug/kg	1
Acenaphthene	U	ND	12.0	40.0	ug/kg	1
Acenaphthylene	U	ND	12.0	40.0	ug/kg	1
Acetophenone	U	ND	120	400	ug/kg	1
Anthracene	U	ND	12.0	40.0	ug/kg	1
Atrazine	U	ND	160	400	ug/kg	1
Benzaldehyde	U	ND	120	400	ug/kg	1
Benzo(a)anthracene	U	ND	12.0	40.0	ug/kg	1
Benzo(a)pyrene	U	ND	12.0	40.0	ug/kg	1
Benzo(b)fluoranthene	U	ND	12.0	40.0	ug/kg	1
Benzo(ghi)perylene	U	ND	12.0	40.0	ug/kg	1
Benzo(k)fluoranthene	U	ND	12.0	40.0	ug/kg	1
Butylbenzylphthalate	U	ND	120	400	ug/kg	1
Caprolactam	U	ND	120	400	ug/kg	1
Carbazole	U	ND	12.0	40.0	ug/kg	1
Chrysene	U	ND	12.0	40.0	ug/kg	1
Di-n-butylphthalate	U	ND	120	400	ug/kg	1
Di-n-octylphthalate	U	ND	120	400	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	12.0	40.0	ug/kg	1
Dibenzofuran	U	ND	120	400	ug/kg	1
Diethylphthalate	U	ND	120	400	ug/kg	1
Dimethylphthalate	U	ND	120	400	ug/kg	1
Diphenylamine	U	ND	120	400	ug/kg	1
Fluoranthene	U	ND	12.0	40.0	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-4-5	Project:	CHAR00712C
Sample ID:	322828026	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	12.0	40.0	ug/kg	1
Hexachlorobenzene	U	ND	120	400	ug/kg	1
Hexachlorobutadiene	U	ND	120	400	ug/kg	1
Hexachlorocyclopentadiene	U	ND	120	400	ug/kg	1
Hexachloroethane	U	ND	120	400	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	12.0	40.0	ug/kg	1
Isophorone	U	ND	120	400	ug/kg	1
N-Nitrosodipropylamine	U	ND	120	400	ug/kg	1
Naphthalene	U	ND	12.0	40.0	ug/kg	1
Nitrobenzene	U	ND	120	400	ug/kg	1
Pentachlorophenol	U	ND	120	400	ug/kg	1
Phenanthrene	U	ND	12.0	40.0	ug/kg	1
Phenol	U	ND	120	400	ug/kg	1
Pyrene	U	ND	12.0	40.0	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	120	400	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	120	400	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	120	400	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	120	400	ug/kg	1
m,p-Cresols	U	ND	120	400	ug/kg	1
m-Nitroaniline	U	ND	120	400	ug/kg	1
o-Cresol	U	ND	120	400	ug/kg	1
o-Nitroaniline	U	ND	132	400	ug/kg	1
p-Nitroaniline	U	ND	120	400	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.254	0.846	ug/kg	1	RXY1	04/11/13	1642	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.254	0.846	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.254	0.846	ug/kg	1					
1,1-Dichloroethane	U	ND	0.254	0.846	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.254	0.846	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.338	0.846	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.254	0.846	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.423	0.846	ug/kg	1					
1,2-Dibromoethane	U	ND	0.254	0.846	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.254	0.846	ug/kg	1					
1,2-Dichloroethane	U	ND	0.254	0.846	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-07-4-5
 Sample ID: 322828026

Project: CHAR00712C
 Client ID: GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.254	0.846	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.254	0.846	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.254	0.846	ug/kg	1
1,4-Dioxane	U	ND	12.7	42.3	ug/kg	1
2-Butanone	U	ND	1.27	4.23	ug/kg	1
2-Hexanone	U	ND	1.27	4.23	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.27	4.23	ug/kg	1
Acetone	U	ND	1.27	4.23	ug/kg	1
Benzene	U	ND	0.254	0.846	ug/kg	1
Bromochloromethane	U	ND	0.254	0.846	ug/kg	1
Bromodichloromethane	U	ND	0.254	0.846	ug/kg	1
Bromoform	U	ND	0.254	0.846	ug/kg	1
Bromomethane	U	ND	0.254	0.846	ug/kg	1
Carbon disulfide	U	ND	1.27	4.23	ug/kg	1
Carbon tetrachloride	U	ND	0.254	0.846	ug/kg	1
Chlorobenzene	U	ND	0.254	0.846	ug/kg	1
Chloroethane	U	ND	0.254	0.846	ug/kg	1
Chloroform	U	ND	0.254	0.846	ug/kg	1
Chloromethane	U	ND	0.254	0.846	ug/kg	1
Cyclohexane	U	ND	0.254	0.846	ug/kg	1
Dibromochloromethane	U	ND	0.254	0.846	ug/kg	1
Dichlorodifluoromethane	U	ND	0.254	0.846	ug/kg	1
Ethylbenzene	U	ND	0.254	0.846	ug/kg	1
Isopropylbenzene	U	ND	0.254	0.846	ug/kg	1
Methyl acetate	U	ND	1.27	4.23	ug/kg	1
Methylcyclohexane	U	ND	0.338	0.846	ug/kg	1
Methylene chloride	U	ND	1.69	4.23	ug/kg	1
Styrene	U	ND	0.254	0.846	ug/kg	1
Tetrachloroethylene	U	ND	0.254	0.846	ug/kg	1
Toluene	U	ND	0.254	0.846	ug/kg	1
Trichloroethylene	U	ND	0.254	0.846	ug/kg	1
Trichlorofluoromethane	U	ND	0.254	0.846	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.27	4.23	ug/kg	1
Vinyl chloride	U	ND	0.254	0.846	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.254	0.846	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.254	0.846	ug/kg	1

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-07-4-5	Project:	CHAR00712C
Sample ID:	322828026	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.254	1.69	ug/kg	1
o-Xylene	U	ND	0.254	0.846	ug/kg	1
tert-Butyl methyl ether	U	ND	0.254	0.846	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.254	0.846	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.254	0.846	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1710	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 7471B		
2	SW846 3050B/6010C		
3	SW846 3050B/6010C		
4	SW846 3550C/8270D		
5	SW846 8260B		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	909 ug/kg	2000	45.5	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	931 ug/kg	2000	46.6	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1330 ug/kg	2000	66.7	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2320 ug/kg	4000	58.1	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2170 ug/kg	4000	54.2	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2100 ug/kg	4000	52.4	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	34.6 ug/kg	50.0	81.8	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	43.3 ug/kg	50.0	102	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	41.8 ug/kg	50.0	98.8	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-0-1	Project:	CHAR00712C
Sample ID:	322828027	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 17:20		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	21.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		2580	46.5	139	ug/kg	10	BCD1	04/04/13	1226	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5030000	8630	25400	ug/kg	1	JWJ	04/08/13	1613	1292640	2
Arsenic		12100	635	3810	ug/kg	1					
Barium		442000	127	635	ug/kg	1					
Beryllium	J	356	127	635	ug/kg	1					
Cadmium		954	127	635	ug/kg	1					
Calcium		8480000	10200	31700	ug/kg	1					
Chromium		19900	190	635	ug/kg	1					
Cobalt		2920	190	635	ug/kg	1					
Copper		89600	381	1270	ug/kg	1					
Iron		16100000	10200	31700	ug/kg	1					
Lead		722000	419	1270	ug/kg	1					
Magnesium		413000	10800	38100	ug/kg	1					
Manganese		199000	254	1270	ug/kg	1					
Nickel		6640	190	635	ug/kg	1					
Potassium		198000	8120	31700	ug/kg	1					
Selenium	J	3110	635	3810	ug/kg	1					
Silver		750	127	635	ug/kg	1					
Sodium		98200	8890	31700	ug/kg	1					
Thallium	U	ND	635	2540	ug/kg	1					
Vanadium		9560	127	635	ug/kg	1					
Zinc		630000	508	1270	ug/kg	1					
Antimony		5440	419	1270	ug/kg	1	JWJ	04/10/13	1408	1292640	3
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	127	422	ug/kg	1	JMB3	04/11/13	1515	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	127	422	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	127	422	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	127	422	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	127	422	ug/kg	1					
2,4-Dichlorophenol	U	ND	127	422	ug/kg	1					
2,4-Dimethylphenol	U	ND	127	422	ug/kg	1					
2,4-Dinitrophenol	U	ND	127	844	ug/kg	1					

Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-0-1	Project:	CHAR00712C
Sample ID:	322828027	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	127	422	ug/kg	1
2,6-Dinitrotoluene	U	ND	127	422	ug/kg	1
2-Chloronaphthalene	U	ND	12.7	42.2	ug/kg	1
2-Chlorophenol	U	ND	127	422	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	127	422	ug/kg	1
2-Methylnaphthalene	J	37.1	12.7	42.2	ug/kg	1
2-Nitrophenol	U	ND	127	422	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	127	422	ug/kg	1
4-Bromophenylphenylether	U	ND	127	422	ug/kg	1
4-Chloro-3-methylphenol	U	ND	169	422	ug/kg	1
4-Chloroaniline	U	ND	127	422	ug/kg	1
4-Chlorophenylphenylether	U	ND	127	422	ug/kg	1
4-Nitrophenol	U	ND	127	422	ug/kg	1
Acenaphthene	J	16.0	12.7	42.2	ug/kg	1
Acenaphthylene		73.4	12.7	42.2	ug/kg	1
Acetophenone	U	ND	127	422	ug/kg	1
Anthracene		186	12.7	42.2	ug/kg	1
Atrazine	U	ND	169	422	ug/kg	1
Benzaldehyde	U	ND	127	422	ug/kg	1
Benzo(a)anthracene		1540	12.7	42.2	ug/kg	1
Benzo(a)pyrene		1460	12.7	42.2	ug/kg	1
Benzo(b)fluoranthene		2040	12.7	42.2	ug/kg	1
Benzo(ghi)perylene		905	12.7	42.2	ug/kg	1
Benzo(k)fluoranthene		684	12.7	42.2	ug/kg	1
Butylbenzylphthalate	U	ND	127	422	ug/kg	1
Caprolactam	U	ND	127	422	ug/kg	1
Carbazole		160	12.7	42.2	ug/kg	1
Chrysene		1610	12.7	42.2	ug/kg	1
Di-n-butylphthalate	U	ND	127	422	ug/kg	1
Di-n-octylphthalate	U	ND	127	422	ug/kg	1
Dibenzo(a,h)anthracene		255	12.7	42.2	ug/kg	1
Dibenzofuran	U	ND	127	422	ug/kg	1
Diethylphthalate	U	ND	127	422	ug/kg	1
Dimethylphthalate	U	ND	127	422	ug/kg	1
Diphenylamine	U	ND	127	422	ug/kg	1
Fluoranthene		2720	12.7	42.2	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-0-1	Project:	CHAR00712C
Sample ID:	322828027	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	J	27.4	12.7	42.2	ug/kg	1
Hexachlorobenzene	U	ND	127	422	ug/kg	1
Hexachlorobutadiene	U	ND	127	422	ug/kg	1
Hexachlorocyclopentadiene	U	ND	127	422	ug/kg	1
Hexachloroethane	U	ND	127	422	ug/kg	1
Indeno(1,2,3-cd)pyrene		1030	12.7	42.2	ug/kg	1
Isophorone	U	ND	127	422	ug/kg	1
N-Nitrosodipropylamine	U	ND	127	422	ug/kg	1
Naphthalene	J	27.4	12.7	42.2	ug/kg	1
Nitrobenzene	U	ND	127	422	ug/kg	1
Pentachlorophenol	U	ND	127	422	ug/kg	1
Phenanthrene		1150	12.7	42.2	ug/kg	1
Phenol	U	ND	127	422	ug/kg	1
Pyrene		3180	12.7	42.2	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	127	422	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	127	422	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	127	422	ug/kg	1
bis(2-Ethylhexyl)phthalate	J	133	127	422	ug/kg	1
m,p-Cresols	U	ND	127	422	ug/kg	1
m-Nitroaniline	U	ND	127	422	ug/kg	1
o-Cresol	U	ND	127	422	ug/kg	1
o-Nitroaniline	U	ND	139	422	ug/kg	1
p-Nitroaniline	U	ND	127	422	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.302	1.01	ug/kg	1	RXY1	04/11/13	1709	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.302	1.01	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.302	1.01	ug/kg	1					
1,1-Dichloroethane	U	ND	0.302	1.01	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.302	1.01	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.403	1.01	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.302	1.01	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.504	1.01	ug/kg	1					
1,2-Dibromoethane	U	ND	0.302	1.01	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.302	1.01	ug/kg	1					
1,2-Dichloroethane	U	ND	0.302	1.01	ug/kg	1					

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-0-1	Project:	CHAR00712C
Sample ID:	322828027	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.302	1.01	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.302	1.01	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.302	1.01	ug/kg	1
1,4-Dioxane	U	ND	15.1	50.4	ug/kg	1
2-Butanone	U	ND	1.51	5.04	ug/kg	1
2-Hexanone	U	ND	1.51	5.04	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.51	5.04	ug/kg	1
Acetone	U	ND	1.51	5.04	ug/kg	1
Benzene	U	ND	0.302	1.01	ug/kg	1
Bromochloromethane	U	ND	0.302	1.01	ug/kg	1
Bromodichloromethane	U	ND	0.302	1.01	ug/kg	1
Bromoform	U	ND	0.302	1.01	ug/kg	1
Bromomethane	U	ND	0.302	1.01	ug/kg	1
Carbon disulfide	U	ND	1.51	5.04	ug/kg	1
Carbon tetrachloride	U	ND	0.302	1.01	ug/kg	1
Chlorobenzene	U	ND	0.302	1.01	ug/kg	1
Chloroethane	U	ND	0.302	1.01	ug/kg	1
Chloroform	U	ND	0.302	1.01	ug/kg	1
Chloromethane	U	ND	0.302	1.01	ug/kg	1
Cyclohexane	U	ND	0.302	1.01	ug/kg	1
Dibromochloromethane	U	ND	0.302	1.01	ug/kg	1
Dichlorodifluoromethane	U	ND	0.302	1.01	ug/kg	1
Ethylbenzene	U	ND	0.302	1.01	ug/kg	1
Isopropylbenzene	U	ND	0.302	1.01	ug/kg	1
Methyl acetate	U	ND	1.51	5.04	ug/kg	1
Methylcyclohexane	U	ND	0.403	1.01	ug/kg	1
Methylene chloride	U	ND	2.02	5.04	ug/kg	1
Styrene	U	ND	0.302	1.01	ug/kg	1
Tetrachloroethylene	U	ND	0.302	1.01	ug/kg	1
Toluene	U	ND	0.302	1.01	ug/kg	1
Trichloroethylene	U	ND	0.302	1.01	ug/kg	1
Trichlorofluoromethane	U	ND	0.302	1.01	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.51	5.04	ug/kg	1
Vinyl chloride	U	ND	0.302	1.01	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.302	1.01	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.302	1.01	ug/kg	1

Certificate of Analysis

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Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-0-1	Project:	CHAR00712C
Sample ID:	322828027	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.302	2.02	ug/kg	1
o-Xylene	U	ND	0.302	1.01	ug/kg	1
tert-Butyl methyl ether	U	ND	0.302	1.01	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.302	1.01	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.302	1.01	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1720	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1020 ug/kg	2110	48.2	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	928 ug/kg	2110	44.0	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1620 ug/kg	2110	76.9	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2700 ug/kg	4220	64.0	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2140 ug/kg	4220	50.8	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2260 ug/kg	4220	53.5	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	43.0 ug/kg	50.0	85.3	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	69.7 ug/kg	50.0	138*	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	63.7 ug/kg	50.0	127*	(80%-120%)

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Report Date: April 16, 2013

Company : GEL Engineering, LLC
Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-4-5	Project:	CHAR00712C
Sample ID:	322828028	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 17:30		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	16.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		15.7		4.84	ug/kg	1	BCD1	04/04/13	1148	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		10500000		7720	ug/kg	1	JWJ	04/08/13	1616	1292640	2
Barium		34900		114	ug/kg	1					
Beryllium	J	165		114	ug/kg	1					
Cadmium	U	ND		114	ug/kg	1					
Calcium		1500000		9090	ug/kg	1					
Chromium		13500		170	ug/kg	1					
Cobalt		817		170	ug/kg	1					
Copper	U	ND		341	ug/kg	1					
Iron		10500000		9090	ug/kg	1					
Lead		17800		375	ug/kg	1					
Magnesium		330000		9650	ug/kg	1					
Manganese		8120		227	ug/kg	1					
Nickel		2020		170	ug/kg	1					
Potassium		244000		7270	ug/kg	1					
Selenium	J	2020		568	ug/kg	1					
Silver	U	ND		114	ug/kg	1					
Sodium		48900		7950	ug/kg	1					
Thallium	U	ND		568	ug/kg	1					
Vanadium		23300		114	ug/kg	1					
Zinc		13600		454	ug/kg	1					
Antimony		1210		375	ug/kg	1	JWJ	04/10/13	1411	1292640	3
Arsenic		3540		568	ug/kg	1					
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	120	400	ug/kg	1	JMB3	04/10/13	1241	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	120	400	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	120	400	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	120	400	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	120	400	ug/kg	1					
2,4-Dichlorophenol	U	ND	120	400	ug/kg	1					
2,4-Dimethylphenol	U	ND	120	400	ug/kg	1					
2,4-Dinitrophenol	U	ND	120	801	ug/kg	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-SS-08-4-5
Sample ID: 322828028

Project: CHAR00712C
Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	120	400	ug/kg	1
2,6-Dinitrotoluene	U	ND	120	400	ug/kg	1
2-Chloronaphthalene	U	ND	12.0	40.0	ug/kg	1
2-Chlorophenol	U	ND	120	400	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	120	400	ug/kg	1
2-Methylnaphthalene	U	ND	12.0	40.0	ug/kg	1
2-Nitrophenol	U	ND	120	400	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	120	400	ug/kg	1
4-Bromophenylphenylether	U	ND	120	400	ug/kg	1
4-Chloro-3-methylphenol	U	ND	160	400	ug/kg	1
4-Chloroaniline	U	ND	120	400	ug/kg	1
4-Chlorophenylphenylether	U	ND	120	400	ug/kg	1
4-Nitrophenol	U	ND	120	400	ug/kg	1
Acenaphthene	U	ND	12.0	40.0	ug/kg	1
Acenaphthylene	U	ND	12.0	40.0	ug/kg	1
Acetophenone	U	ND	120	400	ug/kg	1
Anthracene	U	ND	12.0	40.0	ug/kg	1
Atrazine	U	ND	160	400	ug/kg	1
Benzaldehyde	U	ND	120	400	ug/kg	1
Benzo(a)anthracene	J	25.2	12.0	40.0	ug/kg	1
Benzo(a)pyrene	J	18.0	12.0	40.0	ug/kg	1
Benzo(b)fluoranthene	J	24.0	12.0	40.0	ug/kg	1
Benzo(ghi)perylene	J	12.8	12.0	40.0	ug/kg	1
Benzo(k)fluoranthene	U	ND	12.0	40.0	ug/kg	1
Butylbenzylphthalate	U	ND	120	400	ug/kg	1
Caprolactam	U	ND	120	400	ug/kg	1
Carbazole	U	ND	12.0	40.0	ug/kg	1
Chrysene	J	18.4	12.0	40.0	ug/kg	1
Di-n-butylphthalate	U	ND	120	400	ug/kg	1
Di-n-octylphthalate	U	ND	120	400	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	12.0	40.0	ug/kg	1
Dibenzo-furan	U	ND	120	400	ug/kg	1
Diethylphthalate	U	ND	120	400	ug/kg	1
Dimethylphthalate	U	ND	120	400	ug/kg	1
Diphenylamine	U	ND	120	400	ug/kg	1
Fluoranthene	J	32.8	12.0	40.0	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-4-5	Project:	CHAR00712C
Sample ID:	322828028	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	12.0	40.0	ug/kg	1
Hexachlorobenzene	U	ND	120	400	ug/kg	1
Hexachlorobutadiene	U	ND	120	400	ug/kg	1
Hexachlorocyclopentadiene	U	ND	120	400	ug/kg	1
Hexachloroethane	U	ND	120	400	ug/kg	1
Indeno(1,2,3-cd)pyrene	J	14.0	12.0	40.0	ug/kg	1
Isophorone	U	ND	120	400	ug/kg	1
N-Nitrosodipropylamine	U	ND	120	400	ug/kg	1
Naphthalene	U	ND	12.0	40.0	ug/kg	1
Nitrobenzene	U	ND	120	400	ug/kg	1
Pentachlorophenol	U	ND	120	400	ug/kg	1
Phenanthrene	U	ND	12.0	40.0	ug/kg	1
Phenol	U	ND	120	400	ug/kg	1
Pyrene	J	29.2	12.0	40.0	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	120	400	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	120	400	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	120	400	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	120	400	ug/kg	1
m,p-Cresols	U	ND	120	400	ug/kg	1
m-Nitroaniline	U	ND	120	400	ug/kg	1
o-Cresol	U	ND	120	400	ug/kg	1
o-Nitroaniline	U	ND	132	400	ug/kg	1
p-Nitroaniline	U	ND	120	400	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.241	0.803	ug/kg	1	RXY1	04/11/13	1736	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.241	0.803	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.241	0.803	ug/kg	1					
1,1-Dichloroethane	U	ND	0.241	0.803	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.241	0.803	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.321	0.803	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.241	0.803	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.401	0.803	ug/kg	1					
1,2-Dibromoethane	U	ND	0.241	0.803	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.241	0.803	ug/kg	1					
1,2-Dichloroethane	U	ND	0.241	0.803	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-08-4-5
 Sample ID: 322828028

Project: CHAR00712C
 Client ID: GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.241	0.803	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.241	0.803	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.241	0.803	ug/kg	1
1,4-Dioxane	U	ND	12.0	40.1	ug/kg	1
2-Butanone	U	ND	1.20	4.01	ug/kg	1
2-Hexanone	U	ND	1.20	4.01	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.20	4.01	ug/kg	1
Acetone	U	ND	1.20	4.01	ug/kg	1
Benzene	U	ND	0.241	0.803	ug/kg	1
Bromochloromethane	U	ND	0.241	0.803	ug/kg	1
Bromodichloromethane	U	ND	0.241	0.803	ug/kg	1
Bromoform	U	ND	0.241	0.803	ug/kg	1
Bromomethane	U	ND	0.241	0.803	ug/kg	1
Carbon disulfide	U	ND	1.20	4.01	ug/kg	1
Carbon tetrachloride	U	ND	0.241	0.803	ug/kg	1
Chlorobenzene	U	ND	0.241	0.803	ug/kg	1
Chloroethane	U	ND	0.241	0.803	ug/kg	1
Chloroform	U	ND	0.241	0.803	ug/kg	1
Chloromethane	U	ND	0.241	0.803	ug/kg	1
Cyclohexane	U	ND	0.241	0.803	ug/kg	1
Dibromochloromethane	U	ND	0.241	0.803	ug/kg	1
Dichlorodifluoromethane	U	ND	0.241	0.803	ug/kg	1
Ethylbenzene	U	ND	0.241	0.803	ug/kg	1
Isopropylbenzene	U	ND	0.241	0.803	ug/kg	1
Methyl acetate	U	ND	1.20	4.01	ug/kg	1
Methylcyclohexane	U	ND	0.321	0.803	ug/kg	1
Methylene chloride	U	ND	1.61	4.01	ug/kg	1
Styrene	U	ND	0.241	0.803	ug/kg	1
Tetrachloroethylene	U	ND	0.241	0.803	ug/kg	1
Toluene	U	ND	0.241	0.803	ug/kg	1
Trichloroethylene	U	ND	0.241	0.803	ug/kg	1
Trichlorofluoromethane	U	ND	0.241	0.803	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.20	4.01	ug/kg	1
Vinyl chloride	U	ND	0.241	0.803	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.241	0.803	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.241	0.803	ug/kg	1

Certificate of Analysis

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Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-08-4-5	Project:	CHAR00712C
Sample ID:	322828028	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.241	1.61	ug/kg	1
o-Xylene	U	ND	0.241	0.803	ug/kg	1
tert-Butyl methyl ether	U	ND	0.241	0.803	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.241	0.803	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.241	0.803	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1730	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	816 ug/kg	2000	40.8	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	890 ug/kg	2000	44.5	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1460 ug/kg	2000	73.1	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2700 ug/kg	4000	67.4	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2060 ug/kg	4000	51.4	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1980 ug/kg	4000	49.5	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	32.6 ug/kg	50.0	81.3	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	45.1 ug/kg	50.0	112	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	41.4 ug/kg	50.0	103	(80%-120%)

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Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-0-1	Project:	CHAR00712C
Sample ID:	322828029	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 17:45		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	4.51%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		59.7		4.16	ug/kg	1	BCD1	04/04/13	1150	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		4220000		6940	ug/kg	1	JWJ	04/08/13	1619	1292640	2
Barium		30700		102	ug/kg	1					
Beryllium	J	237		102	ug/kg	1					
Cadmium	U	ND		102	ug/kg	1					
Calcium		8940000		8170	ug/kg	1					
Chromium		12000		153	ug/kg	1					
Cobalt		1390		153	ug/kg	1					
Copper		7730		306	ug/kg	1					
Iron		4310000		8170	ug/kg	1					
Lead		55700		337	ug/kg	1					
Magnesium		465000		8680	ug/kg	1					
Manganese		30000		204	ug/kg	1					
Nickel		2670		153	ug/kg	1					
Potassium		233000		6530	ug/kg	1					
Selenium	U	ND		510	ug/kg	1					
Silver	U	ND		102	ug/kg	1					
Sodium		95900		7150	ug/kg	1					
Thallium	U	ND		510	ug/kg	1					
Vanadium		6880		102	ug/kg	1					
Zinc		42300		408	ug/kg	1					
Antimony	J	506		337	ug/kg	1	JWJ	04/10/13	1414	1292640	3
Arsenic	J	1680		510	ug/kg	1					
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	104	348	ug/kg	1	JMB3	04/11/13	1550	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	104	348	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	104	348	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	104	348	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	104	348	ug/kg	1					
2,4-Dichlorophenol	U	ND	104	348	ug/kg	1					
2,4-Dimethylphenol	U	ND	104	348	ug/kg	1					
2,4-Dinitrophenol	U	ND	104	695	ug/kg	1					

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-0-1	Project:	CHAR00712C
Sample ID:	322828029	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	104	348	ug/kg	1
2,6-Dinitrotoluene	U	ND	104	348	ug/kg	1
2-Chloronaphthalene	U	ND	10.4	34.8	ug/kg	1
2-Chlorophenol	U	ND	104	348	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	104	348	ug/kg	1
2-Methylnaphthalene	U	ND	10.4	34.8	ug/kg	1
2-Nitrophenol	U	ND	104	348	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	104	348	ug/kg	1
4-Bromophenylphenylether	U	ND	104	348	ug/kg	1
4-Chloro-3-methylphenol	U	ND	139	348	ug/kg	1
4-Chloroaniline	U	ND	104	348	ug/kg	1
4-Chlorophenylphenylether	U	ND	104	348	ug/kg	1
4-Nitrophenol	U	ND	104	348	ug/kg	1
Acenaphthene	U	ND	10.4	34.8	ug/kg	1
Acenaphthylene	J	15.6	10.4	34.8	ug/kg	1
Acetophenone	U	ND	104	348	ug/kg	1
Anthracene	U	ND	10.4	34.8	ug/kg	1
Atrazine	U	ND	139	348	ug/kg	1
Benzaldehyde	U	ND	104	348	ug/kg	1
Benzo(a)anthracene		108	10.4	34.8	ug/kg	1
Benzo(a)pyrene		122	10.4	34.8	ug/kg	1
Benzo(b)fluoranthene		183	10.4	34.8	ug/kg	1
Benzo(ghi)perylene		106	10.4	34.8	ug/kg	1
Benzo(k)fluoranthene		59.8	10.4	34.8	ug/kg	1
Butylbenzylphthalate	U	ND	104	348	ug/kg	1
Caprolactam	U	ND	104	348	ug/kg	1
Carbazole	J	13.9	10.4	34.8	ug/kg	1
Chrysene		140	10.4	34.8	ug/kg	1
Di-n-butylphthalate	U	ND	104	348	ug/kg	1
Di-n-octylphthalate	U	ND	104	348	ug/kg	1
Dibenzo(a,h)anthracene	J	25.0	10.4	34.8	ug/kg	1
Dibenzofuran	U	ND	104	348	ug/kg	1
Diethylphthalate	U	ND	104	348	ug/kg	1
Dimethylphthalate	U	ND	104	348	ug/kg	1
Diphenylamine	U	ND	104	348	ug/kg	1
Fluoranthene		220	10.4	34.8	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-0-1	Project:	CHAR00712C
Sample ID:	322828029	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	10.4	34.8	ug/kg	1
Hexachlorobenzene	U	ND	104	348	ug/kg	1
Hexachlorobutadiene	U	ND	104	348	ug/kg	1
Hexachlorocyclopentadiene	U	ND	104	348	ug/kg	1
Hexachloroethane	U	ND	104	348	ug/kg	1
Indeno(1,2,3-cd)pyrene		107	10.4	34.8	ug/kg	1
Isophorone	U	ND	104	348	ug/kg	1
N-Nitrosodipropylamine	U	ND	104	348	ug/kg	1
Naphthalene	U	ND	10.4	34.8	ug/kg	1
Nitrobenzene	U	ND	104	348	ug/kg	1
Pentachlorophenol	U	ND	104	348	ug/kg	1
Phenanthrene		130	10.4	34.8	ug/kg	1
Phenol	U	ND	104	348	ug/kg	1
Pyrene		263	10.4	34.8	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	104	348	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	104	348	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	104	348	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	104	348	ug/kg	1
m,p-Cresols	U	ND	104	348	ug/kg	1
m-Nitroaniline	U	ND	104	348	ug/kg	1
o-Cresol	U	ND	104	348	ug/kg	1
o-Nitroaniline	U	ND	115	348	ug/kg	1
p-Nitroaniline	U	ND	104	348	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.258	0.858	ug/kg	1	RXY1	04/11/13	1804	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.258	0.858	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.258	0.858	ug/kg	1					
1,1-Dichloroethane	U	ND	0.258	0.858	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.258	0.858	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.343	0.858	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.258	0.858	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.429	0.858	ug/kg	1					
1,2-Dibromoethane	U	ND	0.258	0.858	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.258	0.858	ug/kg	1					
1,2-Dichloroethane	U	ND	0.258	0.858	ug/kg	1					

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Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-0-1	Project:	CHAR00712C
Sample ID:	322828029	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.258	0.858	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.258	0.858	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.258	0.858	ug/kg	1
1,4-Dioxane	U	ND	12.9	42.9	ug/kg	1
2-Butanone	U	ND	1.29	4.29	ug/kg	1
2-Hexanone	U	ND	1.29	4.29	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.29	4.29	ug/kg	1
Acetone	U	ND	1.29	4.29	ug/kg	1
Benzene	U	ND	0.258	0.858	ug/kg	1
Bromochloromethane	U	ND	0.258	0.858	ug/kg	1
Bromodichloromethane	U	ND	0.258	0.858	ug/kg	1
Bromoform	U	ND	0.258	0.858	ug/kg	1
Bromomethane	U	ND	0.258	0.858	ug/kg	1
Carbon disulfide	U	ND	1.29	4.29	ug/kg	1
Carbon tetrachloride	U	ND	0.258	0.858	ug/kg	1
Chlorobenzene	U	ND	0.258	0.858	ug/kg	1
Chloroethane	U	ND	0.258	0.858	ug/kg	1
Chloroform	U	ND	0.258	0.858	ug/kg	1
Chloromethane	U	ND	0.258	0.858	ug/kg	1
Cyclohexane	U	ND	0.258	0.858	ug/kg	1
Dibromochloromethane	U	ND	0.258	0.858	ug/kg	1
Dichlorodifluoromethane	U	ND	0.258	0.858	ug/kg	1
Ethylbenzene	U	ND	0.258	0.858	ug/kg	1
Isopropylbenzene	U	ND	0.258	0.858	ug/kg	1
Methyl acetate	U	ND	1.29	4.29	ug/kg	1
Methylcyclohexane	U	ND	0.343	0.858	ug/kg	1
Methylene chloride	U	ND	1.72	4.29	ug/kg	1
Styrene	U	ND	0.258	0.858	ug/kg	1
Tetrachloroethylene	U	ND	0.258	0.858	ug/kg	1
Toluene	U	ND	0.258	0.858	ug/kg	1
Trichloroethylene	U	ND	0.258	0.858	ug/kg	1
Trichlorofluoromethane	U	ND	0.258	0.858	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.29	4.29	ug/kg	1
Vinyl chloride	U	ND	0.258	0.858	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.258	0.858	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.258	0.858	ug/kg	1

Certificate of Analysis

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-0-1	Project:	CHAR00712C
Sample ID:	322828029	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.258	1.72	ug/kg	1
o-Xylene	U	ND	0.258	0.858	ug/kg	1
tert-Butyl methyl ether	U	ND	0.258	0.858	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.258	0.858	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.258	0.858	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1745	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	821 ug/kg	1740	47.3	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	795 ug/kg	1740	45.7	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1380 ug/kg	1740	79.7	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2450 ug/kg	3480	70.4	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1750 ug/kg	3480	50.5	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1840 ug/kg	3480	52.8	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	36.2 ug/kg	50.0	84.4	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	48.7 ug/kg	50.0	113	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	43.2 ug/kg	50.0	101	(80%-120%)

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Report Date: April 16, 2013

Company : GEL Engineering, LLC
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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Project: Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-4-5	Project:	CHAR00712C
Sample ID:	322828030	Client ID:	GEEL003
Matrix:	Soil		
Collect Date:	01-APR-13 17:50		
Receive Date:	02-APR-13		
Collector:	Client		
Moisture:	16.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA											
SW846 7471B Mercury in Solid "Dry Weight Corrected"											
Mercury		554		4.78	ug/kg	1	BCD1	04/04/13	1151	1292604	1
Metals Analysis-ICP											
SW846 3050B/6010C Solid "Dry Weight Corrected"											
Aluminum		5210000		7930	ug/kg	1	JWJ	04/08/13	1622	1292640	2
Barium		64000		117	ug/kg	1					
Beryllium	J	260		117	ug/kg	1					
Cadmium	U	ND		117	ug/kg	1					
Calcium		2280000		9330	ug/kg	1					
Chromium		7230		175	ug/kg	1					
Cobalt		625		175	ug/kg	1					
Copper		10600		350	ug/kg	1					
Iron		3990000		9330	ug/kg	1					
Lead		61500		385	ug/kg	1					
Magnesium		304000		9910	ug/kg	1					
Manganese		70800		233	ug/kg	1					
Nickel		1740		175	ug/kg	1					
Potassium		171000		7460	ug/kg	1					
Selenium	U	ND		583	ug/kg	1					
Silver	U	ND		117	ug/kg	1					
Sodium		38600		8160	ug/kg	1					
Thallium	U	ND		583	ug/kg	1					
Vanadium		6610		117	ug/kg	1					
Zinc		40800		466	ug/kg	1					
Antimony	J	906		1170	ug/kg	1	JWJ	04/10/13	1416	1292640	3
Arsenic	J	1430		583	ug/kg	1					
Semi-Volatile-GC/MS											
8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"											
1,1'-Biphenyl	U	ND	119	395	ug/kg	1	JMB3	04/10/13	0214	1293524	4
1,2,4,5-Tetrachlorobenzene	U	ND	119	395	ug/kg	1					
2,3,4,6-Tetrachlorophenol	U	ND	119	395	ug/kg	1					
2,4,5-Trichlorophenol	U	ND	119	395	ug/kg	1					
2,4,6-Trichlorophenol	U	ND	119	395	ug/kg	1					
2,4-Dichlorophenol	U	ND	119	395	ug/kg	1					
2,4-Dimethylphenol	U	ND	119	395	ug/kg	1					
2,4-Dinitrophenol	U	ND	119	790	ug/kg	1					

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID: PC-SS-09-4-5 Project: CHAR00712C
Sample ID: 322828030 Client ID: GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

2,4-Dinitrotoluene	U	ND	119	395	ug/kg	1
2,6-Dinitrotoluene	U	ND	119	395	ug/kg	1
2-Chloronaphthalene	U	ND	11.9	39.5	ug/kg	1
2-Chlorophenol	U	ND	119	395	ug/kg	1
2-Methyl-4,6-dinitrophenol	U	ND	119	395	ug/kg	1
2-Methylnaphthalene	U	ND	11.9	39.5	ug/kg	1
2-Nitrophenol	U	ND	119	395	ug/kg	1
3,3'-Dichlorobenzidine	U	ND	119	395	ug/kg	1
4-Bromophenylphenylether	U	ND	119	395	ug/kg	1
4-Chloro-3-methylphenol	U	ND	158	395	ug/kg	1
4-Chloroaniline	U	ND	119	395	ug/kg	1
4-Chlorophenylphenylether	U	ND	119	395	ug/kg	1
4-Nitrophenol	U	ND	119	395	ug/kg	1
Acenaphthene	U	ND	11.9	39.5	ug/kg	1
Acenaphthylene	U	ND	11.9	39.5	ug/kg	1
Acetophenone	U	ND	119	395	ug/kg	1
Anthracene	U	ND	11.9	39.5	ug/kg	1
Atrazine	U	ND	158	395	ug/kg	1
Benzaldehyde	U	ND	119	395	ug/kg	1
Benzo(a)anthracene	U	ND	11.9	39.5	ug/kg	1
Benzo(a)pyrene	U	ND	11.9	39.5	ug/kg	1
Benzo(b)fluoranthene	U	ND	11.9	39.5	ug/kg	1
Benzo(ghi)perylene	U	ND	11.9	39.5	ug/kg	1
Benzo(k)fluoranthene	U	ND	11.9	39.5	ug/kg	1
Butylbenzylphthalate	U	ND	119	395	ug/kg	1
Caprolactam	U	ND	119	395	ug/kg	1
Carbazole	U	ND	11.9	39.5	ug/kg	1
Chrysene	U	ND	11.9	39.5	ug/kg	1
Di-n-butylphthalate	U	ND	119	395	ug/kg	1
Di-n-octylphthalate	U	ND	119	395	ug/kg	1
Dibenzo(a,h)anthracene	U	ND	11.9	39.5	ug/kg	1
Dibenzo-furan	U	ND	119	395	ug/kg	1
Diethylphthalate	U	ND	119	395	ug/kg	1
Dimethylphthalate	U	ND	119	395	ug/kg	1
Diphenylamine	U	ND	119	395	ug/kg	1
Fluoranthene	U	ND	11.9	39.5	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-4-5	Project:	CHAR00712C
Sample ID:	322828030	Client ID:	GEEL003

Semi-Volatile-GC/MS

8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"

Fluorene	U	ND	11.9	39.5	ug/kg	1
Hexachlorobenzene	U	ND	119	395	ug/kg	1
Hexachlorobutadiene	U	ND	119	395	ug/kg	1
Hexachlorocyclopentadiene	U	ND	119	395	ug/kg	1
Hexachloroethane	U	ND	119	395	ug/kg	1
Indeno(1,2,3-cd)pyrene	U	ND	11.9	39.5	ug/kg	1
Isophorone	U	ND	119	395	ug/kg	1
N-Nitrosodipropylamine	U	ND	119	395	ug/kg	1
Naphthalene	U	ND	11.9	39.5	ug/kg	1
Nitrobenzene	U	ND	119	395	ug/kg	1
Pentachlorophenol	U	ND	119	395	ug/kg	1
Phenanthrene	U	ND	11.9	39.5	ug/kg	1
Phenol	U	ND	119	395	ug/kg	1
Pyrene	U	ND	11.9	39.5	ug/kg	1
bis(2-Chloroethoxy)methane	U	ND	119	395	ug/kg	1
bis(2-Chloroethyl) ether	U	ND	119	395	ug/kg	1
bis(2-Chloroisopropyl)ether	U	ND	119	395	ug/kg	1
bis(2-Ethylhexyl)phthalate	U	ND	119	395	ug/kg	1
m,p-Cresols	U	ND	119	395	ug/kg	1
m-Nitroaniline	U	ND	119	395	ug/kg	1
o-Cresol	U	ND	119	395	ug/kg	1
o-Nitroaniline	U	ND	130	395	ug/kg	1
p-Nitroaniline	U	ND	119	395	ug/kg	1

Volatile Organics

Volatiles "Dry Weight Corrected"

1,1,1-Trichloroethane	U	ND	0.242	0.805	ug/kg	1	RXY1	04/12/13	1428	1294273	5
1,1,2,2-Tetrachloroethane	U	ND	0.242	0.805	ug/kg	1					
1,1,2-Trichloroethane	U	ND	0.242	0.805	ug/kg	1					
1,1-Dichloroethane	U	ND	0.242	0.805	ug/kg	1					
1,1-Dichloroethylene	U	ND	0.242	0.805	ug/kg	1					
1,2,3-Trichlorobenzene	U	ND	0.322	0.805	ug/kg	1					
1,2,4-Trichlorobenzene	U	ND	0.242	0.805	ug/kg	1					
1,2-Dibromo-3-chloropropane	U	ND	0.403	0.805	ug/kg	1					
1,2-Dibromoethane	U	ND	0.242	0.805	ug/kg	1					
1,2-Dichlorobenzene	U	ND	0.242	0.805	ug/kg	1					
1,2-Dichloroethane	U	ND	0.242	0.805	ug/kg	1					

Certificate of Analysis

Report Date: April 16, 2013

Company : GEL Engineering, LLC
 Address : 2040 Savage Rd

Contact: Charleston, South Carolina 29417
 Project: Mr. Adam MacConnell
 Phase II ESA, Post and Courier

Client Sample ID: PC-SS-09-4-5
 Sample ID: 322828030

Project: CHAR00712C
 Client ID: GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

1,2-Dichloropropane	U	ND	0.242	0.805	ug/kg	1
1,3-Dichlorobenzene	U	ND	0.242	0.805	ug/kg	1
1,4-Dichlorobenzene	U	ND	0.242	0.805	ug/kg	1
1,4-Dioxane	U	ND	12.1	40.3	ug/kg	1
2-Butanone	U	ND	1.21	4.03	ug/kg	1
2-Hexanone	U	ND	1.21	4.03	ug/kg	1
4-Methyl-2-pentanone	U	ND	1.21	4.03	ug/kg	1
Acetone	U	ND	1.21	4.03	ug/kg	1
Benzene	U	ND	0.242	0.805	ug/kg	1
Bromochloromethane	U	ND	0.242	0.805	ug/kg	1
Bromodichloromethane	U	ND	0.242	0.805	ug/kg	1
Bromoform	U	ND	0.242	0.805	ug/kg	1
Bromomethane	U	ND	0.242	0.805	ug/kg	1
Carbon disulfide	U	ND	1.21	4.03	ug/kg	1
Carbon tetrachloride	U	ND	0.242	0.805	ug/kg	1
Chlorobenzene	U	ND	0.242	0.805	ug/kg	1
Chloroethane	U	ND	0.242	0.805	ug/kg	1
Chloroform	U	ND	0.242	0.805	ug/kg	1
Chloromethane	U	ND	0.242	0.805	ug/kg	1
Cyclohexane	U	ND	0.242	0.805	ug/kg	1
Dibromochloromethane	U	ND	0.242	0.805	ug/kg	1
Dichlorodifluoromethane	U	ND	0.242	0.805	ug/kg	1
Ethylbenzene	U	ND	0.242	0.805	ug/kg	1
Isopropylbenzene	U	ND	0.242	0.805	ug/kg	1
Methyl acetate	U	ND	1.21	4.03	ug/kg	1
Methylcyclohexane	U	ND	0.322	0.805	ug/kg	1
Methylene chloride	U	ND	1.61	4.03	ug/kg	1
Styrene	U	ND	0.242	0.805	ug/kg	1
Tetrachloroethylene	U	ND	0.242	0.805	ug/kg	1
Toluene	U	ND	0.242	0.805	ug/kg	1
Trichloroethylene	U	ND	0.242	0.805	ug/kg	1
Trichlorofluoromethane	U	ND	0.242	0.805	ug/kg	1
Trichlorotrifluoroethylene	U	ND	1.21	4.03	ug/kg	1
Vinyl chloride	U	ND	0.242	0.805	ug/kg	1
cis-1,2-Dichloroethylene	U	ND	0.242	0.805	ug/kg	1
cis-1,3-Dichloropropylene	U	ND	0.242	0.805	ug/kg	1

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Contact: Charleston, South Carolina 29417
Project: Mr. Adam MacConnell
Phase II ESA, Post and Courier

Client Sample ID:	PC-SS-09-4-5	Project:	CHAR00712C
Sample ID:	322828030	Client ID:	GEEL003

Volatile Organics

Volatiles "Dry Weight Corrected"

m,p-Xylenes	U	ND	0.242	1.61	ug/kg	1
o-Xylene	U	ND	0.242	0.805	ug/kg	1
tert-Butyl methyl ether	U	ND	0.242	0.805	ug/kg	1
trans-1,2-Dichloroethylene	U	ND	0.242	0.805	ug/kg	1
trans-1,3-Dichloropropylene	U	ND	0.242	0.805	ug/kg	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep for 6010C	AXG2	04/04/13	0730	1292639
SW846 3550C	3550C BNA Soil Prep for 8270D	MXS4	04/08/13	1800	1293517
SW846 5035	5035/8260B Prep	RXY1	04/01/13	1750	1294272
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	AXS5	04/03/13	1120	1292601

The following Analytical Methods were performed:

Method	Description	Analyst Comments		
1	SW846 7471B			
2	SW846 3050B/6010C			
3	SW846 3050B/6010C			
4	SW846 3550C/8270D			
5	SW846 8260B			

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	810 ug/kg	1980	41.0	(16%-112%)
Nitrobenzene-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	861 ug/kg	1980	43.6	(30%-129%)
p-Terphenyl-d14	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1280 ug/kg	1980	65.0	(33%-136%)
2,4,6-Tribromophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	2060 ug/kg	3950	52.2	(14%-125%)
2-Fluorophenol	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1960 ug/kg	3950	49.5	(16%-116%)
Phenol-d5	8270D/3541 BNA Soil Automated Soxhlet "Dry Weight Corrected"	1850 ug/kg	3950	46.9	(30%-107%)
1,2-Dichloroethane-d4	Volatiles "Dry Weight Corrected"	37.2 ug/kg	50.0	92.4	(77%-124%)
Bromofluorobenzene	Volatiles "Dry Weight Corrected"	40.9 ug/kg	50.0	102	(80%-120%)
Toluene-d8	Volatiles "Dry Weight Corrected"	38.9 ug/kg	50.0	96.6	(80%-120%)

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: April 16, 2013
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GEL Engineering, LLC
2040 Savage Rd
Charleston, South Carolina

Contact: Mr. Adam MacConnell

Workorder: 322828

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1292561										
Aluminum		5510		6670	ug/L	19.1		(0%-20%)	LS	04/04/13	17:16
Antimony	U	ND	U	ND	ug/L	N/A				04/05/13	12:03
Arsenic	U	ND	J	12.8	ug/L	200					
Barium		31.6		37.6	ug/L	17.5		(0%-20%)		04/04/13	17:16
Beryllium	U	ND	U	ND	ug/L	N/A					
Cadmium	J	1.05	U	ND	ug/L	200	^				
Calcium		65600		65200	ug/L	0.594		(0%-20%)			
Chromium		11.1		15.0	ug/L	30.0	^	(+/-5.00)			
Cobalt	U	ND	J	1.10	ug/L	200					
Copper	U	ND	U	ND	ug/L	N/A					
Iron		3430		4680	ug/L	30.9*		(0%-20%)			
Lead	J	3.91	U	ND	ug/L	200	^			04/09/13	13:53
Magnesium		11800		11700	ug/L	0.750		(0%-20%)		04/04/13	17:16
Manganese		44.5		46.3	ug/L	3.79	^	(+/-10.0)			
Nickel	J	2.31	J	3.66	ug/L	45.2	^	(+/-5.00)			
Potassium		17700		17600	ug/L	0.204		(0%-20%)			
Selenium	J	8.14	U	ND	ug/L	200	^			04/15/13	14:22
Silver	U	ND	U	ND	ug/L	N/A				04/04/13	17:16
Sodium		10200		10100	ug/L	0.494		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A					
Vanadium		13.9		16.5	ug/L	17.1	^	(+/-5.00)			
Zinc	U	ND	U	ND	ug/L	N/A					
QC1202852705	LCS										
Aluminum		5000		5270	ug/L	105		(80%-120%)		04/04/13	17:11
Antimony		500		486	ug/L	97.2		(80%-120%)		04/05/13	11:57
Arsenic		500		500	ug/L	100		(80%-120%)			
Barium		500		519	ug/L	104		(80%-120%)		04/04/13	17:11
Beryllium		500		511	ug/L	102		(80%-120%)			
Cadmium		500		509	ug/L	102		(80%-120%)			
Calcium		5000		5200	ug/L	104		(80%-120%)			
Chromium		500		506	ug/L	101		(80%-120%)			
Cobalt		500		515	ug/L	103		(80%-120%)			
Copper		500		511	ug/L	102		(80%-120%)			
Iron		5000		5190	ug/L	104		(80%-120%)			
Lead		500		510	ug/L	102		(80%-120%)		04/09/13	13:49
Magnesium		5000		5310	ug/L	106		(80%-120%)		04/04/13	17:11
Manganese		500		506	ug/L	101		(80%-120%)			
Nickel		500		512	ug/L	102		(80%-120%)			

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QC Summary

Workorder: 322828

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1292561										
Potassium	5000			5510	ug/L	110	(80%-120%)				
Selenium	500			480	ug/L	96	(80%-120%)	LS	04/15/13 14:16		
Silver	500			512	ug/L	102	(80%-120%)			04/04/13 17:11	
Sodium	5000			5140	ug/L	103	(80%-120%)				
Thallium	500			515	ug/L	103	(80%-120%)				
Vanadium	500			519	ug/L	104	(80%-120%)				
Zinc	500			495	ug/L	99.1	(80%-120%)				
QC1202852704	MB										
Aluminum			U	ND	ug/L					04/04/13 17:08	
Antimony			U	ND	ug/L					04/05/13 11:54	
Arsenic			U	ND	ug/L						
Barium			U	ND	ug/L					04/04/13 17:08	
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						
Lead			U	ND	ug/L					04/09/13 13:46	
Magnesium			U	ND	ug/L					04/04/13 17:08	
Manganese			U	ND	ug/L						
Nickel			U	ND	ug/L						
Potassium			U	ND	ug/L						
Selenium			U	ND	ug/L					04/15/13 14:13	
Silver			U	ND	ug/L					04/04/13 17:08	
Sodium			U	ND	ug/L						
Thallium			U	ND	ug/L						
Vanadium			U	ND	ug/L						
Zinc			U	ND	ug/L						
QC1202852707	322828001 MS										
Aluminum	5000		5510	18300	ug/L	256*	(75%-125%)			04/04/13 17:18	
Antimony	500	U	ND	468	ug/L	93.6	(75%-125%)			04/05/13 12:05	
Arsenic	500	U	ND	501	ug/L	100	(75%-125%)				
Barium	500		31.6	535	ug/L	101	(75%-125%)	04/04/13 17:18			
Beryllium	500	U	ND	490	ug/L	97.8	(75%-125%)				
Cadmium	500	J	1.05	485	ug/L	96.7	(75%-125%)				
Calcium	5000		65600	71000	ug/L	N/A	(75%-125%)				
Chromium	500		11.1	504	ug/L	98.7	(75%-125%)				
Cobalt	500	U	ND	476	ug/L	95	(75%-125%)				
Copper	500	U	ND	500	ug/L	99.8	(75%-125%)				
Iron	5000		3430	12400	ug/L	179*	(75%-125%)				
Lead	500	J	3.91	486	ug/L	96.4	(75%-125%)				

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 322828

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1292561										
Magnesium	5000	11800		17000	ug/L	105	(75%-125%)		LS	04/04/13	17:18
Manganese	500	44.5		528	ug/L	96.7	(75%-125%)				
Nickel	500	J	2.31	479	ug/L	95.4	(75%-125%)				
Potassium	5000	17700		23000	ug/L	106	(75%-125%)				
Selenium	500	J	8.14	495	ug/L	97.4	(75%-125%)			04/15/13	14:24
Silver	500	U	ND	490	ug/L	98	(75%-125%)			04/04/13	17:18
Sodium	5000	10200		15100	ug/L	98	(75%-125%)				
Thallium	500	U	ND	482	ug/L	96.3	(75%-125%)				
Vanadium	500		13.9	528	ug/L	103	(75%-125%)				
Zinc	500	U	ND	486	ug/L	97.1	(75%-125%)				
QC1202854015 322828001 PS											
Aluminum	5000	5510		10500	ug/L	100	(80%-120%)			04/04/13	17:20
Iron	5000	3430		8300	ug/L	97.4	(80%-120%)				
QC1202852708 322828001 SDILT											
Aluminum		5510		1150	ug/L	4.72	(0%-10%)			04/04/13	17:23
Antimony	U	ND	U	ND	ug/L	N/A	(0%-10%)			04/05/13	12:07
Arsenic	U	ND	J	6.19	ug/L	N/A	(0%-10%)				
Barium		31.6		6.50	ug/L	2.91	(0%-10%)			04/04/13	17:23
Beryllium	U	ND	U	ND	ug/L	N/A	(0%-10%)				
Cadmium	J	1.05	U	ND	ug/L	N/A	(0%-10%)				
Calcium		65600		13000	ug/L	1.14	(0%-10%)				
Chromium		11.1	J	2.86	ug/L	28.7	(0%-10%)				
Cobalt	U	ND	U	ND	ug/L	N/A	(0%-10%)				
Copper	U	ND	U	ND	ug/L	N/A	(0%-10%)				
Iron		3430		685	ug/L	.105	(0%-10%)				
Lead	J	3.91	U	ND	ug/L	N/A	(0%-10%)			04/09/13	13:58
Magnesium		11800		2350	ug/L	.11	(0%-10%)			04/04/13	17:23
Manganese		44.5	J	9.09	ug/L	2.09	(0%-10%)				
Nickel	J	2.31	U	ND	ug/L	N/A	(0%-10%)				
Potassium		17700		3530	ug/L	.303	(0%-10%)				
Selenium	J	8.14	U	ND	ug/L	N/A	(0%-10%)			04/15/13	14:26
Silver	U	ND	U	ND	ug/L	N/A	(0%-10%)			04/04/13	17:23
Sodium		10200		2040	ug/L	.305	(0%-10%)				
Thallium	U	ND	U	ND	ug/L	N/A	(0%-10%)				
Vanadium		13.9	J	2.82	ug/L	1.36	(0%-10%)				
Zinc	U	ND	U	ND	ug/L	N/A	(0%-10%)				
Batch	1292640										
QC1202852898 322828003 DUP											
Aluminum		5140000		4670000	ug/kg	9.60	(0%-20%)		JWJ	04/08/13	15:08
Antimony		1830		1340	ug/kg	31.0	^			04/10/13	13:25
Arsenic	J	2820	J	2980	ug/kg	5.55	^			04/08/13	15:08
Barium		111000		82000	ug/kg	30.3*					

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1292640										
Beryllium	J	232	J	219	ug/kg	5.51	^	(+/-539)			
Cadmium	J	336	J	258	ug/kg	26.4	^	(+/-539)	JWJ	04/08/13	15:08
Calcium		3490000		5800000	ug/kg	49.7*		(0%-20%)			
Chromium		16600		26300	ug/kg	45.0*		(0%-20%)			
Cobalt		1560		1870	ug/kg	17.6	^	(+/-539)			
Copper		35900		43300	ug/kg	18.9		(0%-20%)			
Iron		4590000		5480000	ug/kg	17.7		(0%-20%)			
Lead		195000		158000	ug/kg	20.8*		(0%-20%)			
Magnesium		649000		397000	ug/kg	48.2*		(0%-20%)			
Manganese		57000		60900	ug/kg	6.75		(0%-20%)			
Nickel		3920		3800	ug/kg	3.09		(0%-20%)			
Potassium		109000		119000	ug/kg	8.51	^	(+/-26900)			
Selenium	J	858	J	881	ug/kg	2.64	^	(+/-3230)			
Silver	J	452	J	194	ug/kg	80.0	^	(+/-539)			
Sodium		33100		30700	ug/kg	7.27	^	(+/-26900)			
Thallium	J	924	J	830	ug/kg	10.7	^	(+/-2160)			
Vanadium		5890		5610	ug/kg	4.84		(0%-20%)			
Zinc		156000		139000	ug/kg	11.9		(0%-20%)			
QC1202852897	LCS										
Aluminum		500000		501000	ug/kg	100		(80%-120%)		04/08/13	15:02
Antimony		50000		54200	ug/kg	108		(80%-120%)		04/10/13	12:51
Arsenic		50000		48200	ug/kg	96.3		(80%-120%)		04/08/13	15:02
Barium		50000		49400	ug/kg	98.7		(80%-120%)			
Beryllium		50000		51100	ug/kg	102		(80%-120%)			
Cadmium		50000		49600	ug/kg	99.2		(80%-120%)			
Calcium		500000		493000	ug/kg	98.6		(80%-120%)			
Chromium		50000		48900	ug/kg	97.8		(80%-120%)			
Cobalt		50000		48800	ug/kg	97.7		(80%-120%)			
Copper		50000		50300	ug/kg	101		(80%-120%)			
Iron		500000		480000	ug/kg	96		(80%-120%)			
Lead		50000		49500	ug/kg	98.9		(80%-120%)			
Magnesium		500000		492000	ug/kg	98.4		(80%-120%)			
Manganese		50000		48700	ug/kg	97.4		(80%-120%)			
Nickel		50000		49200	ug/kg	98.4		(80%-120%)			
Potassium		500000		533000	ug/kg	107		(80%-120%)			
Selenium		50000		49700	ug/kg	99.4		(80%-120%)			
Silver		50000		50900	ug/kg	102		(80%-120%)			
Sodium		500000		507000	ug/kg	101		(80%-120%)			
Thallium		50000		48400	ug/kg	96.7		(80%-120%)			
Vanadium		50000		50200	ug/kg	100		(80%-120%)			
Zinc		50000		49600	ug/kg	99.2		(80%-120%)			
QC1202852896	MB										
Aluminum			U	ND	ug/kg					04/08/13	14:59

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1292640										
Antimony			U	ND	ug/kg					04/10/13 12:48	
Arsenic			U	ND	ug/kg					JWJ	04/08/13 14:59
Barium			U	ND	ug/kg						
Beryllium			U	ND	ug/kg						
Cadmium			U	ND	ug/kg						
Calcium			U	ND	ug/kg						
Chromium			J	147	ug/kg						
Cobalt			U	ND	ug/kg						
Copper			U	ND	ug/kg						
Iron			U	ND	ug/kg						
Lead			U	ND	ug/kg						
Magnesium			U	ND	ug/kg						
Manganese			U	ND	ug/kg						
Nickel			J	234	ug/kg						
Potassium			U	ND	ug/kg						
Selenium			U	ND	ug/kg						
Silver			U	ND	ug/kg						
Sodium			U	ND	ug/kg						
Thallium			U	ND	ug/kg						
Vanadium			U	ND	ug/kg						
Zinc			J	472	ug/kg						
QC1202852899	322828003	MS									
Aluminum	540000		5140000	6440000	ug/kg					04/08/13 15:10	
Antimony	54000		1830	56400	ug/kg	101	(75%-125%)			04/10/13 13:00	
Arsenic	54000	J	2820	55200	ug/kg	97.1	(75%-125%)			04/08/13 15:10	
Barium	54000		111000	139000	ug/kg	51.2 *	(75%-125%)				
Beryllium	54000	J	232	55000	ug/kg	101	(75%-125%)				
Cadmium	54000	J	336	52300	ug/kg	96.3	(75%-125%)				
Calcium	540000		3490000	6780000	ug/kg	N/A	(75%-125%)				
Chromium	54000		16600	253000	ug/kg	438 *	(75%-125%)				
Cobalt	54000		1560	53900	ug/kg	96.9	(75%-125%)				
Copper	54000		35900	475000	ug/kg	813 *	(75%-125%)				
Iron	540000		4590000	6720000	ug/kg	N/A	(75%-125%)				
Lead	54000		195000	204000	ug/kg	15.9 *	(75%-125%)				
Magnesium	540000		649000	2060000	ug/kg	261 *	(75%-125%)				
Manganese	54000		57000	108000	ug/kg	94.6	(75%-125%)				
Nickel	54000		3920	59300	ug/kg	103	(75%-125%)				
Potassium	540000		109000	686000	ug/kg	107	(75%-125%)				
Selenium	54000	J	858	52700	ug/kg	96	(75%-125%)				
Silver	54000	J	452	55800	ug/kg	102	(75%-125%)				
Sodium	540000		33100	583000	ug/kg	102	(75%-125%)				
Thallium	54000	J	924	37500	ug/kg	67.8 *	(75%-125%)				

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time	
Metals Analysis-ICP												
Batch	1292640											
Vanadium	54000	5890		63500	ug/kg		107	(75%-125%)				
Zinc	54000	156000		222000	ug/kg		122	(75%-125%)	JWJ	04/08/13	15:10	
QC1202856762	322828003	PS										
Barium	500	1040		1530	ug/L		97.7	(80%-120%)		04/11/13	09:14	
Chromium	500	156		643	ug/L		97.4	(80%-120%)				
Copper	500	335		841	ug/L		101	(80%-120%)				
Lead	500	1830		2300	ug/L		95.4	(80%-120%)				
Magnesium	5000	6070		12500	ug/L		128*	(80%-120%)				
Thallium	500	J	8.64	489	ug/L		96.1	(80%-120%)				
QC1202852900	322828003	SDILT										
Aluminum		48000		9690	ug/L	.805		(0%-10%)		04/08/13	15:13	
Antimony		17.1	U	ND	ug/L	N/A		(0%-10%)		04/10/13	13:03	
Arsenic	J	26.3	J	5.22	ug/L	.915		(0%-10%)		04/08/13	15:13	
Barium		1040		206	ug/L	.826		(0%-10%)				
Beryllium	J	2.17	U	ND	ug/L	N/A		(0%-10%)				
Cadmium	J	3.15	U	ND	ug/L	N/A		(0%-10%)				
Calcium		32600		6470	ug/L	.81		(0%-10%)				
Chromium		156		30.6	ug/L	1.6		(0%-10%)				
Cobalt		14.6	J	3.11	ug/L	6.39		(0%-10%)				
Copper		335		63.8	ug/L	4.97		(0%-10%)				
Iron		42900		8550	ug/L	.397		(0%-10%)				
Lead		1830		366	ug/L	.315		(0%-10%)				
Magnesium		6070		1210	ug/L	.624		(0%-10%)				
Manganese		533		107	ug/L	.00188		(0%-10%)				
Nickel		36.7		6.28	ug/L	14.3		(0%-10%)				
Potassium		1020		267	ug/L	31		(0%-10%)				
Selenium	J	8.02	U	ND	ug/L	N/A		(0%-10%)				
Silver	J	4.23	J	1.10	ug/L	30		(0%-10%)				
Sodium		309	J	90.9	ug/L	47.1		(0%-10%)				
Thallium	J	8.64	U	ND	ug/L	N/A		(0%-10%)				
Vanadium		55.1		10.9	ug/L	.799		(0%-10%)				
Zinc		1460		295	ug/L	1.01		(0%-10%)				
Metals Analysis-Mercury												
Batch	1292604											
QC1202852832	322809002	DUP										
Mercury			HJh	6.39	HJh	6.63	ug/kg	3.74 ^		(+/-11.7)	BCD1	04/04/13 11:09
QC1202852831	LCS											
Mercury			119			122	ug/kg		103	(80%-120%)		04/04/13 11:06
QC1202852830	MB											
Mercury				U		ND	ug/kg					04/04/13 11:04
QC1202852833	322809002	MS										
Mercury			116	HJh	6.39	Hh	121	ug/kg		98.7	(80%-120%)	04/04/13 11:11
QC1202852834	322809002	SDILT										
Mercury			HJh	0.108	HUh	ND	ug/L	N/A		(0%-10%)		04/04/13 11:13

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch	1292819										
Mercury	QC1202853297	322919006	DUP	U	ND	ND	ug/L	N/A		BCD1	04/05/13 12:53
Mercury	QC1202853296	LCS									
Mercury			2.00			2.07	ug/L		104	(80%-120%)	04/05/13 09:09
Mercury	QC1202853295	MB			U	ND	ug/L				04/05/13 09:07
Mercury	QC1202853298	322919006	MS								
Mercury	QC1202853299	322919006	SDILT	2.00	U	ND	1.78	ug/L	88.9	(75%-125%)	04/05/13 09:51
Mercury					U	ND	U	ug/L	N/A	(0%-10%)	04/05/13 09:53
Semi-Volatile-GC/MS											
Batch	1292495										
2,4-Dinitrotoluene	QC1202852525	LCS									
2-Chlorophenol		50.0				43.9	ug/L	87.9	(46%-124%)	AGS1	04/03/13 19:31
4-Chloro-3-methylphenol		50.0				37.2	ug/L	74.5	(41%-98%)		
4-Nitrophenol		50.0				38.9	ug/L	77.8	(47%-110%)		
Acenaphthene		50.0				10.3	ug/L	20.6	(12%-130%)		
N-Nitrosodipropylamine		50.0				31.9	ug/L	63.7	(42%-103%)		
Pentachlorophenol		50.0				41.4	ug/L	82.9	(40%-112%)		
Phenol		50.0				30.2	ug/L	60.4	(36%-99%)		
Pyrene		50.0				15.5	ug/L	31.1	(13%-137%)		
**2,4,6-Tribromophenol		100				40.5	ug/L	81	(39%-126%)		
**2-Fluorobiphenyl		50.0				99.1	ug/L	99.1	(23%-130%)		
**2-Fluorophenol		50.0				35.8	ug/L	71.7	(30%-104%)		
**Nitrobenzene-d5		100				52.5	ug/L	52.5	(14%-77%)		
**Phenol-d5		50.0				40.9	ug/L	81.8	(34%-125%)		
**p-Terphenyl-d14		100				33.3	ug/L	33.3	(10%-78%)		
2,4-Dinitrotoluene	QC1202852526	LCSD				47.9	ug/L	95.9	(33%-136%)		
2-Chlorophenol		50.0				44.8	ug/L	1.83	89.5	(0%-30%)	04/03/13 20:00
4-Chloro-3-methylphenol		50.0				38.1	ug/L	2.26	76.2	(0%-30%)	
4-Nitrophenol		50.0				39.2	ug/L	0.794	78.4	(0%-30%)	
Acenaphthene		50.0				10.4	ug/L	0.774	20.8	(0%-30%)	
N-Nitrosodipropylamine		50.0				33.8	ug/L	5.97	67.6	(0%-30%)	
Pentachlorophenol		50.0				42.6	ug/L	2.86	85.3	(0%-30%)	
Phenol		50.0				29.2	ug/L	3.27	58.4	(0%-30%)	
Pyrene		50.0				16.8	ug/L	7.91	33.6	(0%-30%)	
**2,4,6-Tribromophenol		100				34.4	ug/L	16.3	68.8	(0%-30%)	
**2-Fluorobiphenyl		50.0				94.0	ug/L		94	(23%-130%)	
**2-Fluorophenol		100				37.7	ug/L		75.4	(30%-104%)	
**Nitrobenzene-d5		50.0				56.0	ug/L		56	(14%-77%)	
**Phenol-d5		100				41.1	ug/L		82.2	(34%-125%)	
**p-Terphenyl-d14		50.0				35.0	ug/L		35	(10%-78%)	
						39.8	ug/L		79.7	(33%-136%)	

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Semi-Volatile-GC/MS											
Batch	1292495										
QC1202852524	MB										
1,1'-Biphenyl		U	ND		ug/L						
1,2,4,5-Tetrachlorobenzene		U	ND		ug/L						
2,3,4,6-Tetrachlorophenol		U	ND		ug/L						
2,4,5-Trichlorophenol		U	ND		ug/L						
2,4,6-Trichlorophenol		U	ND		ug/L						
2,4-Dichlorophenol		U	ND		ug/L						
2,4-Dimethylphenol		U	ND		ug/L						
2,4-Dinitrophenol		U	ND		ug/L						
2,4-Dinitrotoluene		U	ND		ug/L						
2,6-Dinitrotoluene		U	ND		ug/L						
2-Chloronaphthalene		U	ND		ug/L						
2-Chlorophenol		U	ND		ug/L						
2-Methyl-4,6-dinitrophenol		U	ND		ug/L						
2-Methylnaphthalene		U	ND		ug/L						
2-Nitrophenol		U	ND		ug/L						
3,3'-Dichlorobenzidine		U	ND		ug/L						
4-Bromophenylphenylether		U	ND		ug/L						
4-Chloro-3-methylphenol		U	ND		ug/L						
4-Chloroaniline		U	ND		ug/L						
4-Chlorophenylphenylether		U	ND		ug/L						
4-Nitrophenol		U	ND		ug/L						
Acenaphthene		U	ND		ug/L						
Acenaphthylene		U	ND		ug/L						
Acetophenone		U	ND		ug/L						
Anthracene		U	ND		ug/L						
Atrazine		U	ND		ug/L						
Benzaldehyde		U	ND		ug/L						
Benzo(a)anthracene		U	ND		ug/L						
Benzo(a)pyrene		U	ND		ug/L						
Benzo(b)fluoranthene		U	ND		ug/L						
Benzo(ghi)perylene		U	ND		ug/L						
Benzo(k)fluoranthene		U	ND		ug/L						
Butylbenzylphthalate		U	ND		ug/L						
Caprolactam		U	ND		ug/L						
Carbazole		U	ND		ug/L						
Chrysene		U	ND		ug/L						
Di-n-butylphthalate		U	ND		ug/L						
Di-n-octylphthalate		U	ND		ug/L						
Dibenzo(a,h)anthracene		U	ND		ug/L						
Dibenzofuran		U	ND		ug/L						
Diethylphthalate		U	ND		ug/L						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch	1292495										
Dimethylphthalate			U	ND	ug/L						
Diphenylamine			U	ND	ug/L						
Fluoranthene			U	ND	ug/L						
Fluorene			U	ND	ug/L						
Hexachlorobenzene			U	ND	ug/L						
Hexachlorobutadiene			U	ND	ug/L						
Hexachlorocyclopentadiene			U	ND	ug/L						
Hexachloroethane			U	ND	ug/L						
Indeno(1,2,3-cd)pyrene			U	ND	ug/L						
Isophorone			U	ND	ug/L						
N-Nitrosodipropylamine			U	ND	ug/L						
Naphthalene			U	ND	ug/L						
Nitrobenzene			U	ND	ug/L						
Pentachlorophenol			U	ND	ug/L						
Phenanthrrene			U	ND	ug/L						
Phenol			U	ND	ug/L						
Pyrene			U	ND	ug/L						
bis(2-Chloroethoxy)methane			U	ND	ug/L						
bis(2-Chloroethyl) ether			U	ND	ug/L						
bis(2-Chloroisopropyl)ether			U	ND	ug/L						
bis(2-Ethylhexyl)phthalate			U	ND	ug/L						
m,p-Cresols			U	ND	ug/L						
m-Nitroaniline			U	ND	ug/L						
o-Cresol			U	ND	ug/L						
o-Nitroaniline			U	ND	ug/L						
p-Nitroaniline			U	ND	ug/L						
**2,4,6-Tribromophenol	100			90.0	ug/L		90	(23%-130%)			
**2-Fluorobiphenyl	50.0			34.9	ug/L		69.7	(30%-104%)			
**2-Fluorophenol	100			65.5	ug/L		65.5	(14%-77%)			
**Nitrobenzene-d5	50.0			42.8	ug/L		85.6	(34%-125%)			
**Phenol-d5	100			41.3	ug/L		41.3	(10%-78%)			
**p-Terphenyl-d14	50.0			43.4	ug/L		86.8	(33%-136%)			
Batch	1293524										
QC1202855033	LCS										
2,4-Dinitrotoluene	1660			1210	ug/kg		73	(43%-125%)	JMB3	04/09/13	21:17
2-Chlorophenol	1660			969	ug/kg		58.3	(31%-111%)			
4-Chloro-3-methylphenol	1660			1060	ug/kg		63.6	(34%-122%)			
4-Nitrophenol	1660			1120	ug/kg		67.5	(32%-110%)			
Acenaphthene	1660			1050	ug/kg		63.3	(32%-112%)			
N-Nitrosodipropylamine	1660			923	ug/kg		55.6	(27%-119%)			
Pentachlorophenol	1660			1370	ug/kg		82.2	(35%-103%)			
Phenol	1660			995	ug/kg		59.9	(29%-113%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch	1293524										
Pyrene	1660			1510	ug/kg	90.8	(36%-118%)				
**2,4,6-Tribromophenol	3320			2580	ug/kg	77.8	(14%-125%)	JMB3	04/09/13 21:17		
**2-Fluorobiphenyl	1660			938	ug/kg	56.5	(16%-112%)				
**2-Fluorophenol	3320			1860	ug/kg	56	(16%-116%)				
**Nitrobenzene-d5	1660			836	ug/kg	50.3	(30%-129%)				
**Phenol-d5	3320			1840	ug/kg	55.3	(30%-107%)				
**p-Terphenyl-d14	1660			1490	ug/kg	89.9	(33%-136%)				
QC1202855032 MB											
1,1'-Biphenyl			U	ND	ug/kg					04/09/13 20:47	
1,2,4,5-Tetrachlorobenzene			U	ND	ug/kg						
2,3,4,6-Tetrachlorophenol			U	ND	ug/kg						
2,4,5-Trichlorophenol			U	ND	ug/kg						
2,4,6-Trichlorophenol			U	ND	ug/kg						
2,4-Dichlorophenol			U	ND	ug/kg						
2,4-Dimethylphenol			U	ND	ug/kg						
2,4-Dinitrophenol			U	ND	ug/kg						
2,4-Dinitrotoluene			U	ND	ug/kg						
2,6-Dinitrotoluene			U	ND	ug/kg						
2-Chloronaphthalene			U	ND	ug/kg						
2-Chlorophenol			U	ND	ug/kg						
2-Methyl-4,6-dinitrophenol			U	ND	ug/kg						
2-Methylnaphthalene			U	ND	ug/kg						
2-Nitrophenol			U	ND	ug/kg						
3,3'-Dichlorobenzidine			U	ND	ug/kg						
4-Bromophenylphenylether			U	ND	ug/kg						
4-Chloro-3-methylphenol			U	ND	ug/kg						
4-Chloroaniline			U	ND	ug/kg						
4-Chlorophenylphenylether			U	ND	ug/kg						
4-Nitrophenol			U	ND	ug/kg						
Acenaphthene			U	ND	ug/kg						
Acenaphthylene			U	ND	ug/kg						
Acetophenone			U	ND	ug/kg						
Anthracene			U	ND	ug/kg						
Atrazine			U	ND	ug/kg						
Benzaldehyde			U	ND	ug/kg						
Benzo(a)anthracene			U	ND	ug/kg						
Benzo(a)pyrene			U	ND	ug/kg						
Benzo(b)fluoranthene			U	ND	ug/kg						
Benzo(ghi)perylene			U	ND	ug/kg						
Benzo(k)fluoranthene			U	ND	ug/kg						
Butylbenzylphthalate			U	ND	ug/kg						
Caprolactam			U	ND	ug/kg						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatile-GC/MS											
Batch	1293524										
Carbazole			U	ND	ug/kg						
Chrysene			U	ND	ug/kg						JMB3 04/09/13 20:47
Di-n-butylphthalate			U	ND	ug/kg						
Di-n-octylphthalate			U	ND	ug/kg						
Dibenzo(a,h)anthracene			U	ND	ug/kg						
Dibenzofuran			U	ND	ug/kg						
Diethylphthalate			U	ND	ug/kg						
Dimethylphthalate			U	ND	ug/kg						
Diphenylamine			U	ND	ug/kg						
Fluoranthene			U	ND	ug/kg						
Fluorene			U	ND	ug/kg						
Hexachlorobenzene			U	ND	ug/kg						
Hexachlorobutadiene			U	ND	ug/kg						
Hexachlorocyclopentadiene			U	ND	ug/kg						
Hexachloroethane			U	ND	ug/kg						
Indeno(1,2,3-cd)pyrene			U	ND	ug/kg						
Isophorone			U	ND	ug/kg						
N-Nitrosodipropylamine			U	ND	ug/kg						
Naphthalene			U	ND	ug/kg						
Nitrobenzene			U	ND	ug/kg						
Pentachlorophenol			U	ND	ug/kg						
Phenanthrene			U	ND	ug/kg						
Phenol			U	ND	ug/kg						
Pyrene			U	ND	ug/kg						
bis(2-Chloroethoxy)methane			U	ND	ug/kg						
bis(2-Chloroethyl) ether			U	ND	ug/kg						
bis(2-Chloroisopropyl)ether			U	ND	ug/kg						
bis(2-Ethylhexyl)phthalate			U	ND	ug/kg						
m,p-Cresols			U	ND	ug/kg						
m-Nitroaniline			U	ND	ug/kg						
o-Cresol			U	ND	ug/kg						
o-Nitroaniline			U	ND	ug/kg						
p-Nitroaniline			U	ND	ug/kg						
**2,4,6-Tribromophenol	3320			1730	ug/kg	52.1	(14%-125%)				
**2-Fluorobiphenyl	1660			759	ug/kg	45.8	(16%-112%)				
**2-Fluorophenol	3320			1630	ug/kg	49	(16%-116%)				
**Nitrobenzene-d5	1660			741	ug/kg	44.7	(30%-129%)				
**Phenol-d5	3320			1570	ug/kg	47.3	(30%-107%)				
**p-Terphenyl-d14	1660			1520	ug/kg	91.8	(33%-136%)				
QC1202855034 322828003 MS											
2,4-Dinitrotoluene	1810	U	ND	1270	ug/kg	70.1	(32%-120%)				04/10/13 16:43
2-Chlorophenol	1810	U	ND	919	ug/kg	50.7	(30%-101%)				

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Semi-Volatile-GC/MS											
Batch	1293524										
4-Chloro-3-methylphenol	1810	U	ND	1330	ug/kg	73.3	(30%-117%)				
4-Nitrophenol	1810	U	ND	1330	ug/kg	73.6	(12%-132%)	JMB3	04/10/13 16:43		
Acenaphthene	1810	U	ND	1070	ug/kg	59.2	(26%-110%)				
N-Nitrosodipropylamine	1810	U	ND	873	ug/kg	48.2	(26%-111%)				
Pentachlorophenol	1810	U	ND	1060	ug/kg	58.8	(20%-112%)				
Phenol	1810	U	ND	949	ug/kg	52.4	(29%-105%)				
Pyrene	1810		353	2170	ug/kg	101	(28%-127%)				
**2,4,6-Tribromophenol	3620		2290	3000	ug/kg	82.7	(14%-125%)				
**2-Fluorobiphenyl	1810		977	923	ug/kg	51	(16%-112%)				
**2-Fluorophenol	3620		2030	1780	ug/kg	49.1	(16%-116%)				
**Nitrobenzene-d5	1810		917	787	ug/kg	43.4	(30%-129%)				
**Phenol-d5	3620		1920	1810	ug/kg	50.1	(30%-107%)				
**p-Terphenyl-d14	1810		1540	1740	ug/kg	96.2	(33%-136%)				
QC1202855035	322828003	MSD									
2,4-Dinitrotoluene	1810	U	ND	1320	ug/kg	3.76	72.9	(0%-30%)		04/10/13 17:12	
2-Chlorophenol	1810	U	ND	1130	ug/kg	20.4	62.3	(0%-30%)			
4-Chloro-3-methylphenol	1810	U	ND	1390	ug/kg	4.85	77	(0%-30%)			
4-Nitrophenol	1810	U	ND	1210	ug/kg	10.0	66.6	(0%-30%)			
Acenaphthene	1810	U	ND	1180	ug/kg	9.73	65.3	(0%-30%)			
N-Nitrosodipropylamine	1810	U	ND	1050	ug/kg	18.3	57.9	(0%-30%)			
Pentachlorophenol	1810	U	ND	1050	ug/kg	1.37	58	(0%-30%)			
Phenol	1810	U	ND	1160	ug/kg	19.9	64.1	(0%-30%)			
Pyrene	1810		353	1840	ug/kg	16.8	82	(0%-30%)			
**2,4,6-Tribromophenol	3620		2290	2820	ug/kg	77.9	(14%-125%)				
**2-Fluorobiphenyl	1810		977	1080	ug/kg	59.8	(16%-112%)				
**2-Fluorophenol	3620		2030	2130	ug/kg	58.8	(16%-116%)				
**Nitrobenzene-d5	1810		917	915	ug/kg	50.6	(30%-129%)				
**Phenol-d5	3620		1920	2190	ug/kg	60.6	(30%-107%)				
**p-Terphenyl-d14	1810		1540	1720	ug/kg	95.1	(33%-136%)				
Semi-Volatiles-PCB											
Batch	1292526										
QC1202852605	LCS										
Aroclor-1016		32.8		24.1	ug/kg	73.4	(70%-130%)	YS1	04/04/13 14:40		
Aroclor-1260		32.8		29.8	ug/kg	91	(70%-130%)				
**4cmx		6.56		4.21	ug/kg	64.2	(37%-121%)				
**Decachlorobiphenyl		6.56		5.82	ug/kg	88.7	(34%-121%)				
QC1202852608	LCSD										
Aroclor-1016		33.3		25.4	ug/kg	5.23	76.2	(0%-30%)		04/04/13 14:55	
Aroclor-1260		33.3		31.3	ug/kg	4.84	94	(0%-30%)			
**4cmx		6.66		4.47	ug/kg	67.2	(37%-121%)				
**Decachlorobiphenyl		6.66		5.90	ug/kg	88.5	(34%-121%)				
QC1202852604	MB										
Aroclor-1016			U	ND	ug/kg					04/04/13 14:25	

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-PCB											
Batch	1292526										
Aroclor-1221				U	ug/kg						
Aroclor-1232				U	ug/kg						
Aroclor-1242				U	ug/kg						
Aroclor-1248				U	ug/kg						
Aroclor-1254				U	ug/kg						
Aroclor-1260				U	ug/kg						
**4cmx	6.59			4.22	ug/kg	64	(37%-121%)				
**Decachlorobiphenyl	6.59			6.03	ug/kg	91.4	(34%-121%)				
QC1202852606	322129001	MS									
Aroclor-1016	877	U	ND	609	ug/kg	69.4	(21%-132%)			04/04/13	14:25
Aroclor-1260	877	U	ND	582	ug/kg	66.4	(24%-126%)				
**4cmx	175		128	104	ug/kg	59	(37%-121%)				
**Decachlorobiphenyl	175		150	119	ug/kg	67.7	(34%-121%)				
QC1202852607	322129001	MSD									
Aroclor-1016	935	U	ND	620	ug/kg	1.86	66.4	(0%-30%)		04/04/13	15:39
Aroclor-1260	935	U	ND	640	ug/kg	9.47	68.5	(0%-30%)			
**4cmx	187		128	126	ug/kg	67.4	(37%-121%)				
**Decachlorobiphenyl	187		150	139	ug/kg	74.3	(34%-121%)				
Batch	1294339										
QC1202857211	LCS										
Aroclor-1016	1.00			0.737	ug/L	73.7	(70%-130%)			YS1	04/15/13 10:55
Aroclor-1260	1.00			0.708	ug/L	70.8	(70%-130%)				
**4cmx	0.200			0.124	ug/L	62	(42%-120%)				
**Decachlorobiphenyl	0.200			0.173	ug/L	86.7	(41%-120%)				
QC1202857212	LCSD										
Aroclor-1016	1.00			0.745	ug/L	1.11	74.5	(0%-30%)		04/15/13	11:54
Aroclor-1260	1.00			0.707	ug/L	0.195	70.7	(0%-30%)			
**4cmx	0.200			0.128	ug/L	64.2	(42%-120%)				
**Decachlorobiphenyl	0.200			0.170	ug/L	84.8	(41%-120%)				
QC1202857210	MB										
Aroclor-1016				U	ug/L						04/15/13 10:40
Aroclor-1221				U	ug/L						
Aroclor-1232				U	ug/L						
Aroclor-1242				J	0.0538	ug/L					
Aroclor-1248				U	ug/L						
Aroclor-1254				U	ug/L						
Aroclor-1260				U	ug/L						
**4cmx	0.200			0.121	ug/L	60.6	(42%-120%)				
**Decachlorobiphenyl	0.200			0.170	ug/L	84.8	(41%-120%)				
Semi-Volatiles-Pesticide											
Batch	1292713										
QC1202853061	LCS										
4,4'-DDD	1.25			1.30	ug/L	104	(70%-130%)			JXM	04/05/13 07:56
4,4'-DDE	1.25			1.35	ug/L	108	(70%-130%)				

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-Pesticide											
Batch	1292713										
4,4'-DDT	1.25			1.42	ug/L	113	(70%-130%)				
Aldrin	0.500			0.438	ug/L	87.7	(70%-130%)	JXM	04/05/13 07:56		
Chlordane (tech.)			U	ND	ug/L		(70%-130%)				
Dieldrin	1.25			1.34	ug/L	107	(70%-130%)				
Endosulfan I	0.500			0.487	ug/L	97.3	(70%-130%)				
Endosulfan II	1.25			1.23	ug/L	98.4	(70%-130%)				
Endosulfan sulfate	1.25			1.39	ug/L	111	(70%-130%)				
Endrin	1.25			1.50	ug/L	120	(70%-130%)				
Endrin aldehyde	1.25			1.38	ug/L	111	(70%-130%)				
Endrin ketone	1.25			1.26	ug/L	101	(70%-130%)				
Heptachlor	0.500			0.552	ug/L	110	(70%-130%)				
Heptachlor epoxide	0.500			0.560	ug/L	112	(70%-130%)				
Methoxychlor	5.00			5.64	ug/L	113	(70%-130%)				
Toxaphene			U	ND	ug/L		(70%-130%)				
alpha-BHC	0.500			0.596	ug/L	119	(70%-130%)				
beta-BHC	0.500			0.565	ug/L	113	(70%-130%)				
delta-BHC	0.500			0.639	ug/L	128	(70%-130%)				
gamma-BHC (Lindane)	0.500			0.592	ug/L	118	(70%-130%)				
**4cmx	1.00			0.909	ug/L	90.9	(38%-104%)				
**Decachlorobiphenyl	1.00			1.14	ug/L	114	(40%-131%)				
QC1202853062	LCSD										
4,4'-DDD	1.25			1.28	ug/L	102	(0%-30%)				04/05/13 08:11
4,4'-DDE	1.25			1.32	ug/L	106	(0%-30%)				
4,4'-DDT	1.25			1.38	ug/L	110	(0%-30%)				
Aldrin	0.500			0.423	ug/L	84.6	(0%-30%)				
Chlordane (tech.)			U	ND	ug/L	N/A	(0%-30%)				
Dieldrin	1.25			1.29	ug/L	103	(0%-30%)				
Endosulfan I	0.500			0.464	ug/L	92.8	(0%-30%)				
Endosulfan II	1.25			1.19	ug/L	95.4	(0%-30%)				
Endosulfan sulfate	1.25			1.33	ug/L	106	(0%-30%)				
Endrin	1.25			1.45	ug/L	116	(0%-30%)				
Endrin aldehyde	1.25			1.37	ug/L	110	(0%-30%)				
Endrin ketone	1.25			1.22	ug/L	97.9	(0%-30%)				
Heptachlor	0.500			0.536	ug/L	107	(0%-30%)				
Heptachlor epoxide	0.500			0.531	ug/L	106	(0%-30%)				
Methoxychlor	5.00			5.49	ug/L	110	(0%-30%)				
Toxaphene			U	ND	ug/L	N/A	(0%-30%)				
alpha-BHC	0.500			0.584	ug/L	117	(0%-30%)				
beta-BHC	0.500			0.548	ug/L	110	(0%-30%)				
delta-BHC	0.500			0.636	ug/L	127	(0%-30%)				
gamma-BHC (Lindane)	0.500			0.581	ug/L	116	(0%-30%)				
**4cmx	1.00			0.891	ug/L	89.1	(38%-104%)				

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-Pesticide											
Batch	1292713										
**Decachlorobiphenyl QC1202853060	1.00 MB			1.09	ug/L		109	(40%-131%)			
4,4'-DDD		U	ND	ug/L					JXM	04/05/13	07:42
4,4'-DDE		U	ND	ug/L							
4,4'-DDT		U	ND	ug/L							
Aldrin		U	ND	ug/L							
Chlordane (tech.)		U	ND	ug/L							
Dieldrin		U	ND	ug/L							
Endosulfan I		U	ND	ug/L							
Endosulfan II		U	ND	ug/L							
Endosulfan sulfate		U	ND	ug/L							
Endrin		U	ND	ug/L							
Endrin aldehyde		U	ND	ug/L							
Endrin ketone		U	ND	ug/L							
Heptachlor		U	ND	ug/L							
Heptachlor epoxide		U	ND	ug/L							
Methoxychlor		U	ND	ug/L							
Toxaphene		U	ND	ug/L							
alpha-BHC		U	ND	ug/L							
beta-BHC		U	ND	ug/L							
delta-BHC		U	ND	ug/L							
gamma-BHC (Lindane)		U	ND	ug/L							
**4cmx	1.00			0.725	ug/L		72.5	(38%-104%)			
**Decachlorobiphenyl QC1202853165	1.00 LCS			0.887	ug/L		88.7	(40%-131%)			
Batch	1292756										
4,4'-DDD	41.4			37.4	ug/kg		90.4	(70%-130%)	JXM	04/05/13	10:03
4,4'-DDE	41.4			39.1	ug/kg		94.5	(70%-130%)			
4,4'-DDT	41.4			39.3	ug/kg		94.9	(70%-130%)			
Aldrin	16.6			14.8	ug/kg		89.4	(70%-130%)			
Chlordane (tech.)		U	ND	ug/kg				(70%-130%)			
Dieldrin	41.4			35.7	ug/kg		86.3	(70%-130%)			
Endosulfan I	16.6			12.6	ug/kg		76.3	(70%-130%)			
Endosulfan II	41.4			32.9	ug/kg		79.6	(70%-130%)			
Endosulfan sulfate	41.4			38.1	ug/kg		92.1	(70%-130%)			
Endrin	41.4			43.0	ug/kg		104	(70%-130%)			
Endrin aldehyde	41.4			37.2	ug/kg		90	(70%-130%)			
Endrin ketone	41.4			34.0	ug/kg		82.3	(70%-130%)			
Heptachlor	16.6			14.3	ug/kg		86.5	(70%-130%)			
Heptachlor epoxide	16.6			15.0	ug/kg		90.5	(70%-130%)			
Methoxychlor	166			164	ug/kg		99.1	(70%-130%)			
Toxaphene		U	ND	ug/kg				(70%-130%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-Pesticide											
Batch	1292756										
alpha-BHC	16.6			13.9	ug/kg	84.1	(70%-130%)				
beta-BHC	16.6			13.9	ug/kg	83.7	(70%-130%)	JXM	04/05/13 10:03		
delta-BHC	16.6			13.8	ug/kg	83.6	(70%-130%)				
gamma-BHC (Lindane)	16.6			14.2	ug/kg	85.7	(70%-130%)				
**4cmx	33.1			24.7	ug/kg	74.7	(26%-110%)				
**Decachlorobiphenyl	33.1			31.8	ug/kg	96.1	(37%-136%)				
QC1202853164 MB											
4,4'-DDD			U	ND	ug/kg					04/05/13 09:49	
4,4'-DDE			U	ND	ug/kg						
4,4'-DDT			U	ND	ug/kg						
Aldrin			U	ND	ug/kg						
Chlordane (tech.)			U	ND	ug/kg						
Dieldrin			U	ND	ug/kg						
Endosulfan I			U	ND	ug/kg						
Endosulfan II			U	ND	ug/kg						
Endosulfan sulfate			U	ND	ug/kg						
Endrin			U	ND	ug/kg						
Endrin aldehyde			U	ND	ug/kg						
Endrin ketone			U	ND	ug/kg						
Heptachlor			U	ND	ug/kg						
Heptachlor epoxide			U	ND	ug/kg						
Methoxychlor			U	ND	ug/kg						
Toxaphene			U	ND	ug/kg						
alpha-BHC			U	ND	ug/kg						
beta-BHC			U	ND	ug/kg						
delta-BHC			U	ND	ug/kg						
gamma-BHC (Lindane)			U	ND	ug/kg						
**4cmx	33.0			19.7	ug/kg	59.6	(26%-110%)				
**Decachlorobiphenyl	33.0			26.3	ug/kg	79.9	(37%-136%)				
QC1202853166 322901001 MS											
4,4'-DDD	119	U	ND P	253	ug/kg	212*	(35%-136%)			04/05/13 11:56	
4,4'-DDE	119	U	ND P	188	ug/kg	158*	(35%-126%)				
4,4'-DDT	119	U	ND	299	ug/kg	250*	(29%-140%)				
Aldrin	47.7	U	ND	55.5	ug/kg	116*	(34%-110%)				
Chlordane (tech.)		U	ND U	ND	ug/kg		(50%-150%)				
Dieldrin	119	U	ND	109	ug/kg	91.6	(33%-120%)				
Endosulfan I	47.7	U	ND	32.7	ug/kg	68.6	(29%-109%)				
Endosulfan II	119	U	ND	93.6	ug/kg	78.5	(29%-118%)				
Endosulfan sulfate	119	U	ND	113	ug/kg	94.5	(31%-134%)				
Endrin	119	U	ND	116	ug/kg	97.6	(37%-137%)				
Endrin aldehyde	119	U	ND	152	ug/kg	128*	(30%-105%)				
Endrin ketone	119	U	ND P	152	ug/kg	127	(28%-128%)				
Heptachlor	47.7	U	ND P	26.9	ug/kg	56.3	(32%-120%)				

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Semi-Volatiles-Pesticide											
Batch	1292756										
Heptachlor epoxide	47.7	U	ND P	41.0	ug/kg	85.9	(31%-122%)				
Methoxychlor	477	U	ND JP	187	ug/kg	39.2	(31%-138%)	JXM	04/05/13 11:56		
Toxaphene		U	ND U	ND	ug/kg		(50%-150%)				
alpha-BHC	47.7	U	ND	34.7	ug/kg	72.7	(32%-117%)				
beta-BHC	47.7	U	ND P	93.2	ug/kg	195*	(29%-128%)				
delta-BHC	47.7	U	ND P	37.9	ug/kg	79.5	(32%-122%)				
gamma-BHC (Lindane)	47.7	U	ND	32.4	ug/kg	67.9	(32%-120%)				
**4cmx	95.4		105	97.6	ug/kg	102	(26%-110%)				
**Decachlorobiphenyl	95.4		60.4	47.6	ug/kg	49.9	(37%-136%)				
QC1202853167 322901001 MSD											
4,4'-DDD	122	U	ND	135	ug/kg	60.8*	111	(0%-30%)		04/05/13 12:11	
4,4'-DDE	122	U	ND P	126	ug/kg	39.9*	103	(0%-30%)			
4,4'-DDT	122	U	ND	131	ug/kg	78.1*	108	(0%-30%)			
Aldrin	48.6	U	ND	53.0	ug/kg	4.73	109	(0%-30%)			
Chlordane (tech.)		U	ND U	ND	ug/kg	N/A		(0%-30%)			
Dieldrin	122	U	ND	78.4	ug/kg	32.9*	64.4	(0%-30%)			
Endosulfan I	48.6	U	ND	23.5	ug/kg	32.9*	48.3	(0%-30%)			
Endosulfan II	122	U	ND PU	ND	ug/kg	200*	0*	(0%-30%)			
Endosulfan sulfate	122	U	ND	87.1	ug/kg	25.6	71.6	(0%-30%)			
Endrin	122	U	ND	107	ug/kg	8.79	87.7	(0%-30%)			
Endrin aldehyde	122	U	ND	112	ug/kg	30.5*	92	(0%-30%)			
Endrin ketone	122	U	ND P	124	ug/kg	20.0	102	(0%-30%)			
Heptachlor	48.6	U	ND P	25.0	ug/kg	6.98	51.5	(0%-30%)			
Heptachlor epoxide	48.6	U	ND P	33.5	ug/kg	20.1	68.9	(0%-30%)			
Methoxychlor	486	U	ND JP	148	ug/kg	23.0	30.5*	(0%-30%)			
Toxaphene		U	ND U	ND	ug/kg	N/A		(0%-30%)			
alpha-BHC	48.6	U	ND	29.6	ug/kg	15.9	60.8	(0%-30%)			
beta-BHC	48.6	U	ND	81.8	ug/kg	13.1	168*	(0%-30%)			
delta-BHC	48.6	U	ND P	34.0	ug/kg	10.8	70	(0%-30%)			
gamma-BHC (Lindane)	48.6	U	ND	33.1	ug/kg	2.22	68.1	(0%-30%)			
**4cmx	97.3		105	91.8	ug/kg		94.4	(26%-110%)			
**Decachlorobiphenyl	97.3		60.4	51.4	ug/kg		52.9	(37%-136%)			
Volatile-GC/MS											
Batch	1293571										
QC1202855162 LCS											
1,1-Dichloroethylene	50.0			43.4	ug/L	86.9	(70%-130%)	RXY1	04/08/13 10:39		
1,2,4-Trichlorobenzene	50.0			45.3	ug/L	90.5	(70%-130%)				
4-Methyl-2-pentanone	250			229	ug/L	91.7	(70%-130%)				
Benzene	50.0			44.1	ug/L	88.2	(70%-130%)				
Chlorobenzene	50.0			44.0	ug/L	87.9	(70%-130%)				
Chloroform	50.0			41.8	ug/L	83.6	(70%-130%)				
Toluene	50.0			44.5	ug/L	89.1	(70%-130%)				
				46.4							

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Volatile-GC/MS											
Batch	1293571										
Trichloroethylene	50.0				ug/L	92.9	(70%-130%)				
Vinyl chloride	50.0			42.3	ug/L	84.6	(70%-130%)	RXY1		04/08/13	10:39
tert-Butyl methyl ether	50.0			41.3	ug/L	82.6	(70%-130%)				
**1,2-Dichloroethane-d4	50.0			42.6	ug/L	85.2	(78%-124%)				
**Bromofluorobenzene	50.0			46.4	ug/L	92.8	(80%-120%)				
**Toluene-d8	50.0			48.6	ug/L	97.1	(80%-120%)				
QC1202855159 MB											
1,1,1-Trichloroethane			U	ND	ug/L						04/08/13 12:57
1,1,2,2-Tetrachloroethane			U	ND	ug/L						
1,1,2-Trichloroethane			U	ND	ug/L						
1,1-Dichloroethylene			U	ND	ug/L						
1,1-Dichloroethylen			U	ND	ug/L						
1,2,3-Trichlorobenzene			U	ND	ug/L						
1,2,4-Trichlorobenzene			U	ND	ug/L						
1,2-Dibromo-3-chloropropane			U	ND	ug/L						
1,2-Dibromoethane			U	ND	ug/L						
1,2-Dichlorobenzene			U	ND	ug/L						
1,2-Dichloroethane			U	ND	ug/L						
1,2-Dichloropropane			U	ND	ug/L						
1,3-Dichlorobenzene			U	ND	ug/L						
1,4-Dichlorobenzene			U	ND	ug/L						
1,4-Dioxane			U	ND	ug/L						
2-Butanone			U	ND	ug/L						
2-Hexanone			U	ND	ug/L						
4-Methyl-2-pentanone			U	ND	ug/L						
Acetone			U	ND	ug/L						
Benzene			U	ND	ug/L						
Bromochloromethane			U	ND	ug/L						
Bromodichloromethane			U	ND	ug/L						
Bromoform			U	ND	ug/L						
Bromomethane			U	ND	ug/L						
Carbon disulfide			U	ND	ug/L						
Carbon tetrachloride			U	ND	ug/L						
Chlorobenzene			U	ND	ug/L						
Chloroethane			U	ND	ug/L						
Chloroform			U	ND	ug/L						
Chloromethane			U	ND	ug/L						
Cyclohexane			U	ND	ug/L						
Dibromochloromethane			U	ND	ug/L						
Dichlorodifluoromethane			U	ND	ug/L						
Ethylbenzene			U	ND	ug/L						
Isopropylbenzene			U	ND	ug/L						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch	1293571										
Methyl acetate			U	ND	ug/L						
Methylcyclohexane			U	ND	ug/L						RXY1 04/08/13 12:57
Methylene chloride			U	ND	ug/L						
Styrene			U	ND	ug/L						
Tetrachloroethylene			U	ND	ug/L						
Toluene			U	ND	ug/L						
Trichloroethylene			U	ND	ug/L						
Trichlorofluoromethane			U	ND	ug/L						
Trichlorotrifluoroethane			U	ND	ug/L						
Vinyl chloride			U	ND	ug/L						
cis-1,2-Dichloroethylene			U	ND	ug/L						
cis-1,3-Dichloropropylene			U	ND	ug/L						
m,p-Xylenes			U	ND	ug/L						
o-Xylene			U	ND	ug/L						
tert-Butyl methyl ether			U	ND	ug/L						
trans-1,2-Dichloroethylene			U	ND	ug/L						
trans-1,3-Dichloropropylene			U	ND	ug/L						
**1,2-Dichloroethane-d4	50.0			44.2	ug/L	88.4	(78%-124%)				
**Bromofluorobenzene	50.0			50.3	ug/L	101	(80%-120%)				
**Toluene-d8	50.0			50.1	ug/L	100	(80%-120%)				
QC1202855160 322828001 PS											
1,1-Dichloroethylene	50.0	U	ND	40.9	ug/L	81.8	(67%-132%)				04/08/13 20:22
1,2,4-Trichlorobenzene	50.0	U	ND	43.5	ug/L	86.9	(55%-128%)				
4-Methyl-2-pentanone	250	U	ND	244	ug/L	97.4	(68%-136%)				
Benzene	50.0	U	ND	42.0	ug/L	84.1	(73%-119%)				
Chlorobenzene	50.0	U	ND	42.8	ug/L	85.6	(73%-119%)				
Chloroform	50.0	U	ND	41.1	ug/L	82.2	(75%-125%)				
Toluene	50.0	U	ND	40.7	ug/L	81.4	(62%-126%)				
Trichloroethylene	50.0	U	ND	43.0	ug/L	85.9	(54%-147%)				
Vinyl chloride	50.0	U	ND	38.8	ug/L	77.5	(49%-129%)				
tert-Butyl methyl ether	50.0	U	ND	43.7	ug/L	87.4	(73%-126%)				
**1,2-Dichloroethane-d4	50.0		50.8	46.9	ug/L	93.7	(78%-124%)				
**Bromofluorobenzene	50.0		53.6	51.7	ug/L	103	(80%-120%)				
**Toluene-d8	50.0		51.5	49.0	ug/L	98	(80%-120%)				
QC1202855161 322828001 PSD											
1,1-Dichloroethylene	50.0	U	ND	41.3	ug/L	1.02	82.6	(0%-20%)			04/08/13 20:50
1,2,4-Trichlorobenzene	50.0	U	ND	42.4	ug/L	2.52	84.8	(0%-20%)			
4-Methyl-2-pentanone	250	U	ND	222	ug/L	9.32	88.7	(0%-20%)			
Benzene	50.0	U	ND	42.9	ug/L	2.00	85.8	(0%-20%)			
Chlorobenzene	50.0	U	ND	43.2	ug/L	0.954	86.4	(0%-20%)			
Chloroform	50.0	U	ND	41.8	ug/L	1.71	83.6	(0%-20%)			
Toluene	50.0	U	ND	42.4	ug/L	4.07	84.8	(0%-20%)			
Trichloroethylene	50.0	U	ND	44.3	ug/L	3.03	88.6	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch	1293571										
Vinyl chloride	50.0	U	ND	40.6	ug/L	4.71	81.2	(0%-20%)			
tert-Butyl methyl ether	50.0	U	ND	41.2	ug/L	5.87	82.4	(0%-20%)	RXY1	04/08/13	20:50
**1,2-Dichloroethane-d4	50.0		50.8	43.8	ug/L		87.6	(78%-124%)			
**Bromofluorobenzene	50.0		53.6	50.0	ug/L		99.9	(80%-120%)			
**Toluene-d8	50.0		51.5	48.3	ug/L		96.5	(80%-120%)			
Batch	1294273										
QC1202857051 LCS											
1,1-Dichloroethylene	50.0			47.4	ug/kg		94.9	(70%-130%)	RXY1	04/11/13	07:58
1,2,4-Trichlorobenzene	50.0			48.3	ug/kg		96.6	(70%-130%)			
4-Methyl-2-pentanone	250			258	ug/kg		103	(70%-130%)			
Benzene	50.0			48.5	ug/kg		96.9	(70%-130%)			
Chlorobenzene	50.0			45.9	ug/kg		91.7	(70%-130%)			
Chloroform	50.0			44.7	ug/kg		89.4	(70%-130%)			
Toluene	50.0			45.6	ug/kg		91.2	(70%-130%)			
Trichloroethylene	50.0			49.0	ug/kg		97.9	(70%-130%)			
Vinyl chloride	50.0			41.9	ug/kg		83.8	(70%-130%)			
tert-Butyl methyl ether	50.0			48.0	ug/kg		96	(70%-130%)			
**1,2-Dichloroethane-d4	50.0			47.5	ug/L		94.9	(77%-124%)			
**Bromofluorobenzene	50.0			53.3	ug/L		107	(80%-120%)			
**Toluene-d8	50.0			50.8	ug/L		102	(80%-120%)			
QC1202857647 LCS											
1,1-Dichloroethylene	50.0			49.2	ug/kg		98.4	(70%-130%)			04/12/13 07:59
1,2,4-Trichlorobenzene	50.0			51.2	ug/kg		102	(70%-130%)			
4-Methyl-2-pentanone	250			286	ug/kg		114	(70%-130%)			
Benzene	50.0			50.8	ug/kg		102	(70%-130%)			
Chlorobenzene	50.0			49.2	ug/kg		98.4	(70%-130%)			
Chloroform	50.0			45.9	ug/kg		91.8	(70%-130%)			
Toluene	50.0			49.1	ug/kg		98.2	(70%-130%)			
Trichloroethylene	50.0			51.5	ug/kg		103	(70%-130%)			
Vinyl chloride	50.0			42.9	ug/kg		85.8	(70%-130%)			
tert-Butyl methyl ether	50.0			50.6	ug/kg		101	(70%-130%)			
**1,2-Dichloroethane-d4	50.0			44.1	ug/L		88.2	(77%-124%)			
**Bromofluorobenzene	50.0			49.3	ug/L		98.6	(80%-120%)			
**Toluene-d8	50.0			48.5	ug/L		97	(80%-120%)			
QC1202857052 LCSD											
1,1-Dichloroethylene	50.0			50.4	ug/kg	6.05	101	(0%-20%)			04/11/13 08:53
1,2,4-Trichlorobenzene	50.0			49.9	ug/kg	3.22	99.8	(0%-20%)			
4-Methyl-2-pentanone	250			263	ug/kg	1.82	105	(0%-20%)			
Benzene	50.0			50.8	ug/kg	4.65	102	(0%-20%)			
Chlorobenzene	50.0			48.6	ug/kg	5.80	97.2	(0%-20%)			
Chloroform	50.0			46.5	ug/kg	3.88	92.9	(0%-20%)			
Toluene	50.0			50.5	ug/kg	10.2	101	(0%-20%)			
Trichloroethylene	50.0			52.7	ug/kg	7.28	105	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch	1294273										
Vinyl chloride	50.0			43.5	ug/kg	3.68	87	(0%-20%)			
tert-Butyl methyl ether	50.0			47.9	ug/kg	0.125	95.9	(0%-20%)	RXY1	04/11/13	08:53
**1,2-Dichloroethane-d4	50.0			44.5	ug/L		89	(77%-124%)			
**Bromofluorobenzene	50.0			50.7	ug/L		101	(80%-120%)			
**Toluene-d8	50.0			49.4	ug/L		98.7	(80%-120%)			
QC1202857050 MB											
1,1,1-Trichloroethane			U	ND	ug/kg						04/11/13 09:48
1,1,2,2-Tetrachloroethane			U	ND	ug/kg						
1,1,2-Trichloroethane			U	ND	ug/kg						
1,1-Dichloroethane			U	ND	ug/kg						
1,1-Dichloroethylene			U	ND	ug/kg						
1,2,3-Trichlorobenzene			U	ND	ug/kg						
1,2,4-Trichlorobenzene			U	ND	ug/kg						
1,2-Dibromo-3-chloropropane			U	ND	ug/kg						
1,2-Dibromoethane			U	ND	ug/kg						
1,2-Dichlorobenzene			U	ND	ug/kg						
1,2-Dichloroethane			U	ND	ug/kg						
1,2-Dichloropropane			U	ND	ug/kg						
1,3-Dichlorobenzene			U	ND	ug/kg						
1,4-Dichlorobenzene			U	ND	ug/kg						
1,4-Dioxane			U	ND	ug/kg						
2-Butanone			U	ND	ug/kg						
2-Hexanone			U	ND	ug/kg						
4-Methyl-2-pentanone			U	ND	ug/kg						
Acetone			U	ND	ug/kg						
Benzene			U	ND	ug/kg						
Bromochloromethane			U	ND	ug/kg						
Bromodichloromethane			U	ND	ug/kg						
Bromoform			U	ND	ug/kg						
Bromomethane			U	ND	ug/kg						
Carbon disulfide			U	ND	ug/kg						
Carbon tetrachloride			U	ND	ug/kg						
Chlorobenzene			U	ND	ug/kg						
Chloroethane			U	ND	ug/kg						
Chloroform			U	ND	ug/kg						
Chloromethane			U	ND	ug/kg						
Cyclohexane			U	ND	ug/kg						
Dibromochloromethane			U	ND	ug/kg						
Dichlorodifluoromethane			U	ND	ug/kg						
Ethylbenzene			U	ND	ug/kg						
Isopropylbenzene			U	ND	ug/kg						
Methyl acetate			U	ND	ug/kg						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch	1294273										
Methylcyclohexane				U	ND	ug/kg					
Methylene chloride				U	ND	ug/kg					RXY1 04/11/13 09:48
Styrene				U	ND	ug/kg					
Tetrachloroethylene				U	ND	ug/kg					
Toluene				U	ND	ug/kg					
Trichloroethylene				U	ND	ug/kg					
Trichlorofluoromethane				U	ND	ug/kg					
Trichlorotrifluoroethane				U	ND	ug/kg					
Vinyl chloride				U	ND	ug/kg					
cis-1,2-Dichloroethylene				U	ND	ug/kg					
cis-1,3-Dichloropropylene				U	ND	ug/kg					
m,p-Xylenes				U	ND	ug/kg					
o-Xylene				U	ND	ug/kg					
tert-Butyl methyl ether				U	ND	ug/kg					
trans-1,2-Dichloroethylene				U	ND	ug/kg					
trans-1,3-Dichloropropylene				U	ND	ug/kg					
**1,2-Dichloroethane-d4	50.0			42.7	ug/L	85.3	(77%-124%)				
**Bromofluorobenzene	50.0			50.0	ug/L	100	(80%-120%)				
**Toluene-d8	50.0			47.2	ug/L	94.4	(80%-120%)				
QC1202857646 MB											
1,1,1-Trichloroethane				U	ND	ug/kg					04/12/13 10:19
1,1,2,2-Tetrachloroethane				U	ND	ug/kg					
1,1,2-Trichloroethane				U	ND	ug/kg					
1,1-Dichloroethane				U	ND	ug/kg					
1,1-Dichloroethylene				U	ND	ug/kg					
1,2,3-Trichlorobenzene				U	ND	ug/kg					
1,2,4-Trichlorobenzene				U	ND	ug/kg					
1,2-Dibromo-3-chloropropane				U	ND	ug/kg					
1,2-Dibromoethane				U	ND	ug/kg					
1,2-Dichlorobenzene				U	ND	ug/kg					
1,2-Dichloroethane				U	ND	ug/kg					
1,2-Dichloropropane				U	ND	ug/kg					
1,3-Dichlorobenzene				U	ND	ug/kg					
1,4-Dichlorobenzene				U	ND	ug/kg					
1,4-Dioxane				U	ND	ug/kg					
2-Butanone				U	ND	ug/kg					
2-Hexanone				U	ND	ug/kg					
4-Methyl-2-pentanone				U	ND	ug/kg					
Acetone				U	ND	ug/kg					
Benzene				U	ND	ug/kg					
Bromochloromethane				U	ND	ug/kg					
Bromodichloromethane				U	ND	ug/kg					

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS										
Batch	1294273									
Bromoform		U	ND	ug/kg						
Bromomethane		U	ND	ug/kg						
Carbon disulfide		U	ND	ug/kg						
Carbon tetrachloride		U	ND	ug/kg						
Chlorobenzene		U	ND	ug/kg						
Chloroethane		U	ND	ug/kg						
Chloroform		U	ND	ug/kg						
Chloromethane		U	ND	ug/kg						
Cyclohexane		U	ND	ug/kg						
Dibromochloromethane		U	ND	ug/kg						
Dichlorodifluoromethane		U	ND	ug/kg						
Ethylbenzene		U	ND	ug/kg						
Isopropylbenzene		U	ND	ug/kg						
Methyl acetate		U	ND	ug/kg						
Methylcyclohexane		U	ND	ug/kg						
Methylene chloride		U	ND	ug/kg						
Styrene		U	ND	ug/kg						
Tetrachloroethylene		U	ND	ug/kg						
Toluene		U	ND	ug/kg						
Trichloroethylene		U	ND	ug/kg						
Trichlorofluoromethane		U	ND	ug/kg						
Trichlorotrifluoroethylene		U	ND	ug/kg						
Vinyl chloride		U	ND	ug/kg						
cis-1,2-Dichloroethylene		U	ND	ug/kg						
cis-1,3-Dichloropropylene		U	ND	ug/kg						
m,p-Xylenes		U	ND	ug/kg						
o-Xylene		U	ND	ug/kg						
tert-Butyl methyl ether		U	ND	ug/kg						
trans-1,2-Dichloroethylene		U	ND	ug/kg						
trans-1,3-Dichloropropylene		U	ND	ug/kg						
**1,2-Dichloroethane-d4	50.0		42.7	ug/L	85.3	(77%-124%)				
**Bromofluorobenzene	50.0		50.0	ug/L	100	(80%-120%)				
**Toluene-d8	50.0		47.0	ug/L	94	(80%-120%)				

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

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Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B	The target analyte was detected in the associated blank.									
BD	Results are either below the MDC or tracer recovery is low									
C	Analyte has been confirmed by GC/MS analysis									
D	Results are reported from a diluted aliquot of the sample									
E	%difference of sample and SD is >10%. Sample concentration must meet flagging criteria									
E	Concentration of the target analyte exceeds the instrument calibration range									
FA	Failed analysis.									
FB	Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies									
H	Analytical holding time was exceeded									
J	Value is estimated									
JNX	Non Calibrated Compound									
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.									
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.									
M	M if above MDC and less than LLD									
M	REMP Result > MDC/CL and < RDL									
N	Metals--The Matrix spike sample recovery is not within specified control limits									
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor									
N	Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor									
N/A	RPD or %Recovery limits do not apply.									
N1	See case narrative									
ND	Analyte concentration is not detected above the detection limit									
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%									
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.									
R	Sample results are rejected									
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.									
UI	Gamma Spectroscopy--Uncertain identification									
UJ	Compound cannot be extracted									
UJ	Gamma Spectroscopy--Uncertain identification									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
Y	QC Samples were not spiked with this compound									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
h	Preparation or preservation holding time was exceeded									

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

[^] The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

DATA EXCEPTION REPORT			
Mo.Day Yr. 04-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: MERCURY	Test / Method: SW846 7471B	Matrix Type: Solid	Client Code: CHAR, NUKE
Batch ID: 1292604	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 322809,322828			
Application Issues: Sample received out of holding			
Specification and Requirements Exception Description:		DER Disposition:	
1. Sample received out of holding: 322809 002 QC 1202852832DUP,1202852833MS, 1202852834SDILT		1. These samples did not meet the required holding time, due to being received after the holding time had expired. The data is reported as is.	

Originator's Name:

Bryan Davis 04-APR-13

Data Validator/Group Leader:

Aubrey Kingsbury 05-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 05-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: GC/ECD	Test / Method: SW846 3541/8082A	Matrix Type: Solid	Client Code: CHAR, WSRB
Batch ID: 1292526	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 322129,322476,322651,322828			
Application Issues: Failed Recovery for LCS/LCSD Failed Yield for Surrogates			
Specification and Requirements Exception Description:	DER Disposition:		
Samples 322476001, 322651003 and 322828003(PC-SS-02-0-1) did not meet surrogate recovery acceptance criteria.	The failure was attributed to sample dilution. the data were reported.		

Originator's Name:

Yiping Shi 05-APR-13

Data Validator/Group Leader:

Jimin Cao 05-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 05-APR-13	Division: Industrial	Quality Criteria: SOP	Type: Process
Instrument Type: GC/ECD	Test / Method: SW846 3535A/8081B	Matrix Type: Liquid	Client Code: GEEL
Batch ID: 1292713	Sample Numbers: 322733001, 322757001, 322828001, 322828006, 1202853060, 1202853061, 1202853062		
Potentially affected work order(s)(SDG):322733,322757,322828			
Application Issues: Failed CCV or CCB			
Specification and Requirements Exception Description:		DER Disposition:	
1. The Chlordane check standard passes average with one peak out of acceptance criteria bias high.		1. The Chlordane check standard passed average with one peak out of acceptance criteria bias high. Since Chlordane was not detected in the associated samples, the data are reported.	

Originator's Name:

James Maestas 05-APR-13

Data Validator/Group Leader:

Herbert Maier 05-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 09-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: GC/ECD	Test / Method: SW846 3541/8081B	Matrix Type: Solid	Client Code: CARE, CHAR
Batch ID: 1292756	Sample Numbers: See Below		
Potentially affected work order(s)(SDG):322828,322901(EUI-9249)			
Application Issues: Failed Recovery for MS/PS Failed RPD for MS/MSD, or PS/PSD Failed Recovery for MSD/PSD			
Specification and Requirements Exception Description:	DER Disposition:		
1. The 202853166MS recovered several spiked analytes out of the acceptance limits. Please see the QC Summary/Spike Recovery Report for the specific analytes and values. 2. The 1202853167MSD recovered several spiked analytes out of the acceptance limits. Please see the QC Summary/Spike Recovery Report for the specific analytes and values. 3. Multiple RPD values for the MS and MSD were not within the acceptance limits. Please see the QC Summary/Spike Recovery Report for the specific analytes and values.	1 and 2. Multiple analytes failed to meet the acceptance criteria in both the MS and MSD. The MS and MSD exhibited similar recoveries. The failures are attributed to matrix interference and that the samples were analyzed at a dilution. The data are reported. 3. The MS and MSD failed multiple RPD values due to matrix interference and that the samples were analyzed at a dilution. The data are reported.		

Originator's Name:

James Maestas 09-APR-13

Data Validator/Group Leader:

Herbert Maier 09-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 10-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: GC/ECD	Test / Method: SW846 3535A/8082A	Matrix Type: Liquid	Client Code: CHAR, GEMS, WASP
Batch ID: 1293626	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 322414,322757,322828			
Application Issues: Failed Yield for Surrogates			
Specification and Requirements Exception Description:	DER Disposition:		
Samples 322414007, 322828001(PC-MW-02) and 322828006(PC-MW-01) did not meet the surrogate recovery acceptance criteria.	Sample 322414007 was extracted twice and the failure was confirmed due to sample matrix interference. The original data were reported. Samples 322828001 and 322828006 were re-extracted.		

Originator's Name:

Yiping Shi

10-APR-13

Data Validator/Group Leader:

Cameron Bearden 10-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 11-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3050B/6010C	Matrix Type: Solid	Client Code: CHAR
Batch ID: 1292640	Sample Numbers: See Below		
Potentially affected work order(s)(SDG):322828			
Application Issues: Failed Recovery for MS/PS Failed RPD for DUP			
Specification and Requirements Exception Description:	DER Disposition:		
1. Failed Recovery for MS/PS: QC 1202852899(PC-SS-02-0-1)MS,1202856762(PC-SS-02-0-1)PS 2. Failed RPD for DUP: QC 1202852898(PC-SS-02-0-1)DUP	1. The matrix spike recovery failed outside of the control limits for thallium, barium, chromium, copper, lead and magnesium. The post spike failed outside the required control limits for magnesium but passed for all other analytes. This verifies the presence of a matrix interference for magnesium and verifies the absence of a matrix interference for all the other analytes. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for barium, calcium, chromium, lead and magnesium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.		

Originator's Name:

Jerry Wigfall 11-APR-13

Data Validator/Group Leader:

Theresa McKelvey 11-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 16-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: VOA GC/MS	Test / Method: SW846 8260B	Matrix Type: Solid	Client Code: CHAR 322828
Batch ID: 1294273	Sample Numbers: 322828003, 322828027		
Potentially affected work order(s)(SDG):322828			
Application Issues:			
Other			
Failed Yield for Surrogates			
Specification and Requirements Exception Description:	DER Disposition:		
1. The samples 322828003(PC-SS-02-0-1) and 322828027(PC-SS-08-0-1) did not meet the acceptable recovery criteria for surrogate recoveries. 2. The sample 322828003(PC-SS-02-0-1) did not meet the acceptable recovery criteria for the internal recoveries.	1. Surrogate recoveries were not within the acceptance criteria. The sample was re-analyzed and confirmed the results. Matrix interference has been demonstrated. 2. Internal standard recoveries were not within acceptance criteria. The sample was re-analyzed and confirmed the results. Matrix interference has been demonstrated.		

Originator's Name:

Ramona Yarbrough 16-APR-13

Data Validator/Group Leader:

Kelle Bellamy 16-APR-13

DATA EXCEPTION REPORT			
Mo.Day Yr. 16-APR-13	Division: Industrial	Quality Criteria: Specifications	Type: Process
Instrument Type: ICP	Test / Method: SW846 3010A/6010C	Matrix Type: Liquid	Client Code: CHAR
Batch ID: 1292561	Sample Numbers: See Below		
Potentially affected work order(s)(SDG):322828			
Application Issues: Failed Recovery for MS/PS Failed RPD for DUP			
Specification and Requirements Exception Description:	DER Disposition:		
1. Failed Recovery for MS/PS: QC 1202852707(PC-MW-02)MS	1.The matrix spike recovery failed outside of the control limits for aluminum and iron. The post spike passed the required control limits for all analytes. This verifies the absence of a matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.		
2. Failed RPD for DUP: QC 1202852706(PC-MW-02)DUP	2.The sample and sample duplicate % RPD failed outside the control limits for iron due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3.This sample is a ground water with particle at the bottom.		

Originator's Name:

Louise Smith 16-APR-13

Data Validator/Group Leader:

Jerry Wigfall 16-APR-13

Page: _____ of _____
 Project #: C-14 AR00712
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____

GEL Chain of Custody and Analytical Request

Client Name: GEL (CHAR00712)
 Project/Site Name: Pest Control
 Address: Charleston, SC
 Collected by: J.L. (S.R.C.) Send Results To: A2-A Meier
 GEL Work Order Number: 322828

Phone #: _____

Fax #:

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	• Date Collected (mm-dd-yy)	* Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (d)	TSCA Regulated Radionactive	Total number of containers considered:	Should this sample be considered:			<-- Preservative Type (6)		
								PCB	PCB	PCB	VOC	VOC	VOC
PC-MW-02	4/11/13	1210	G	N	GW	11	2	1	2	2	2	2	2
PC-TB-040113		1225	TB	W		4							
PC-SS-02-0-1		1220	G	SO	GW	4					1	1	1
PC-SS-02-5-6		1235	G	SO	GW	6					1	1	4
PC-MW-02		1210	G	GW		1					1		
PC-MW-01		1320	G	GW		11	2	2	2	2	2	2	2
PC-FB-040113		1330	FB	W		7							
PC-SS-01-0-1		1315	G	SO	GW	6					1	1	4
PC-SS-01-4-5		1325	G	SO	GW	6					1	1	4
PC-MW-01		1320	G	-	GW	1					1		

TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone
 Eastern
 Central
 Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	GEL PM:	Method of Shipment:	Date Shipped:
<u>Steve Doles 4/2/13 0905</u>			<u>Mark Hobbs 4-2-13 0335</u>					
2							Airbill #:	

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - if yes the sample was field filtered or - N - if sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, SW=Groundwater, WW=Surface Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, OO=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/74704 - 3, 6010B/74704 - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

WHITE = LABORATORY

VET LOW = FILTER

PCN K = C1, F1, T

For Lab Receiving Use Only

Custody Seal Intact?

YES NO

Cooler Temp:

C

Page:	of	GEL Chain of Custody and Analytical Request	
Project #:	<u>LittAWK 712</u>		
GEL Quote #:			
COC Number (1):			
PO Number:			
Client Name:	GEL Engineering LLC		
Project/Site Name:	Post + Cource		
Address:	Charleston, SC		
Collected by:	<u>Client (S. Rankin)</u>	Send Results To:	<u>A. MacCormick</u>
88	* For composites - indicate start and stop date/time * Date Collected (mm-dd-yy) * Time Collected (Military) (hhmm) QC Code (2) Field Filtered (3) Sample Matrix (4)		

Phone #: _____ Fax #: _____

Fax #: _____

Phone #: _____

Fax #: _____

Sample Analysis Request⁽⁵⁾ (Fill in the number of containers for each test)

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	TSCA Regulated	Total number of containers	Comments
PL-SS-05-0-1	4/1/13	16:05	6	N	50		5	1 9
PL-SS-05-4-5		16:15					5	1 4
PL-SS-06-0-1		16:30					5	1 4
PL-SS-06-4-5		16:40					5	1 4
PL-SS-07-0-1		17:00					5	1 4
PL-SS-07-4-5		17:10					5	1 4
PL-SS-08-0-1		17:20					6	2 4
PL-SS-08-4-5		17:30					6	2 4
PL-SS-09-0-1		17:45					6	2 4
PL-SS-09-4-5		17:50					6	2 4

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone	<input checked="" type="checkbox"/> Eastern	<input type="checkbox"/> Central	<input type="checkbox"/> Mountain
Pacific	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time	GEL PM:	Method of Shipment:	Date Shipped:	Sample Shipping and Delivery Details
<u>Steve P. S.</u>	4/2/13	08:05	<u>M. J. Parker</u>	4/2/13	08:05				
							Airbill #:		
							Airbill #:		

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, W=Waste Water, SO=Soil, SP=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Filter, U=Wipe, F=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

WHITE = LABORATORY

YELLOW = FIELD

For Lab Receiving Use Only

Custody Seal intact?

YES

NO

Cooler Temp:

C

PINK = CLIENT

SAMPLE RECEIPT & REVIEW FORM

Client: CTAIR	SDG/AR/COC/Work Order: 322828		
Received By: JP	Date Received: 4-2-13		
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 cpm
Classified Radioactive II or III by RSO?			If yes, Were swipes taken of sample containers < action levels?
COC/Samples marked containing PCBs?			
Package, COC, and/or Samples marked as beryllium or asbestos containing?			If yes, samples are to be segregated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?			Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?			

Sample Receipt Criteria			Comments/Qualifiers (Required for Non-Conforming Items)
	Yes	NA	No
1 Shipping containers received intact and sealed?	/		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	/		Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius 3,2
2a Daily check performed and passed on IR temperature gun?	/		Temperature Device Serial #: 41508709 Secondary Temperature Device Serial # (If Applicable):
3 Chain of custody documents included with shipment?	/		
4 Sample containers intact and sealed?	/		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5 Samples requiring chemical preservation at proper pH?	/		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?	/		Sample ID's and containers affected:
7 Are Encore containers present?	/		(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	/		ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	/		Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	/		Sample ID's affected:
11 Number of containers received match number indicated on COC?	/		Sample ID's affected:
12 Are sample containers identifiable as GEL provided?	/		
13 COC form is properly signed in relinquished/received sections?	/		
14 Carrier and tracking number.	/		Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other

Comments (Use Continuation Form if needed):

List of current GEL Certifications as of 16 April 2013

State	Certification
Alaska	UST-110
Arkansas	88-0651
CLIA	42D0904046
California NELAP	01151CA
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC00012
DoD ELAP A2LA ISO 17025	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-12-00283, P330-12-00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA130005
Maryland	270
Massachusetts	M-SC012
Nevada	SC000122011-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68-00485
Plant Material Permit	PDEP-12-00260
South Carolina Chemistry	10120001
South Carolina Radiochemi	10120002
Tennessee	TN 02934
Texas NELAP	T104704235-13-8
Utah NELAP	SC000122013-8
Vermont	VT87156
Virginia NELAP	460202
Washington	C780-12
Wisconsin	999887790